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ABSTRACT

In September 1962, the State Board of Education initiated a broad annual study of the academic achievement and scholastic aptitude of West Virginia public schools called the State-County Testing Program. The results of this program in Region II West Virginia schools for 1965-66 - 1969-70 are analyzed to: 1) identify discernable trends; 2) find any significant disparities between results of the Testing Program and the objectives of the Comprehensive Education Program; 3) provide an item analysis on achievement tests used in the State-County Testing Program for academic year 1969-70. (MS)

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# A Study of the West Virginia State-County Testing Program

David A. Puzzuoli / Donald L. Alexander
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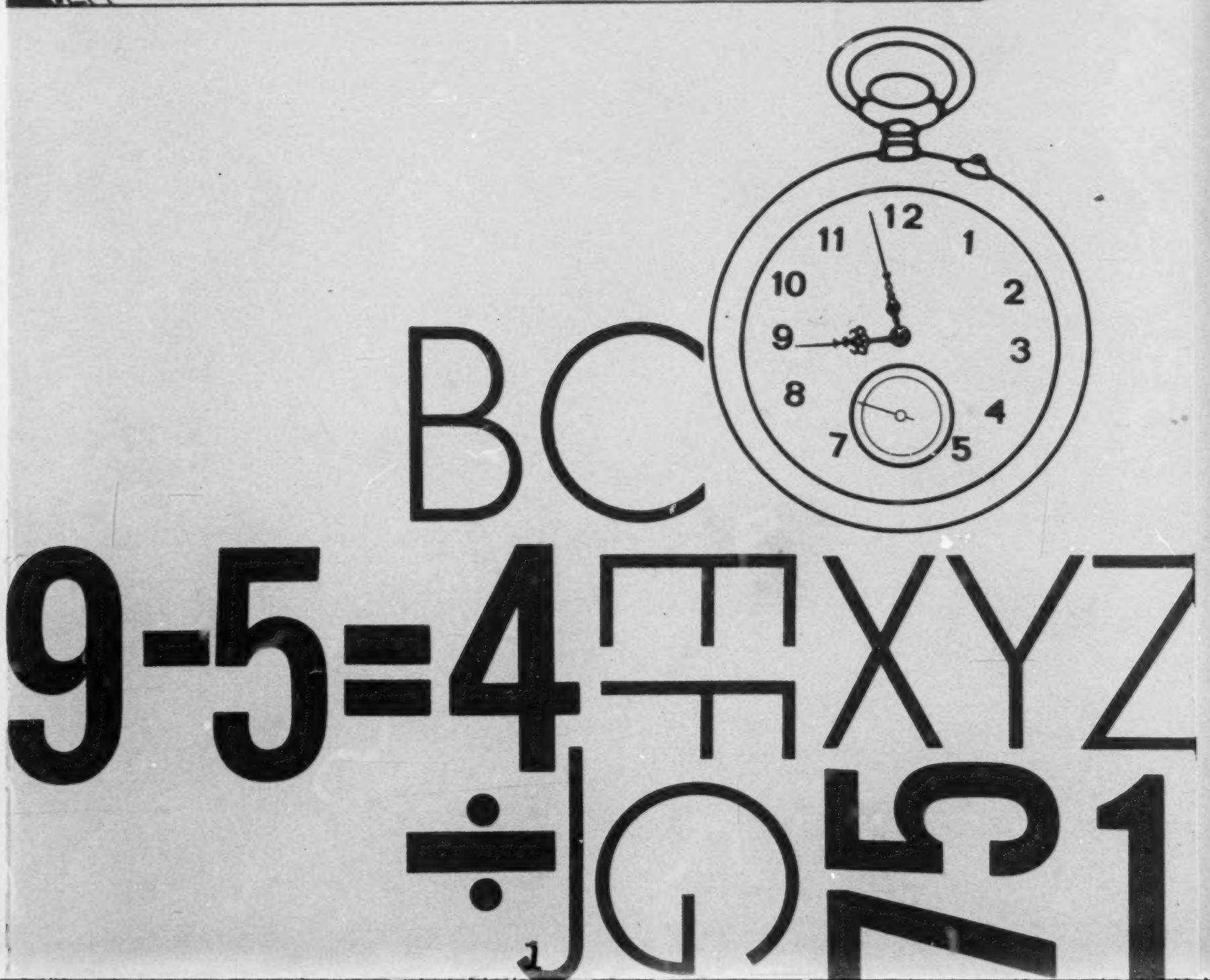

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# A STUDY OF THE WEST VIRGINIA STATE-COUNTY TESTING PROGRAM

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April, 1971

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# PREFACE

This Study was funded through the Elementary and Secondary Education Act, 1965, Title V, Section 503, Flow-Through Funds granted to Region II, West Virginia, by the West Virginia State Department of Education.

The successful completion of a study of this nature requires the effort and support of many people. The authors wish to specifically identify and extend their appreciation to such agencies and persons.

The authors are indebted to the West Virginia State Department of Education for their confidence and assistance throughout this Study. The efforts put forth by Marion McCoy and Raymond Miller in retrieving all pertinent data for this study are recognized.

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The Project team for this Study included Boyd Holtan, Kenneth Murray, Thomas Hatcher, Donald Alexander, David A. Puzzuoli, and Mrs. Georgia Beal, Secretary.

David A. Puzzuoli
Donald L. Alexander

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# A STUDY OF THE WEST VIRGINIA STATE-COUNTY TESTING PROGRAM

## INTRODUCTION

Educational leaders in West Virginia are repeatedly seeking answers to the question "How good are our schools?" At the outset, one must recognize that this is a highly complex question and that simplistic answers are neither applicable nor available. The answer is complex because, in essence, the quality of the West Virginia schools is dependent upon many components and the components are highly interrelated and interdependent. Some of the more obvious components upon which the quality of schools rest are financial support, policy decisions, statutory and regulatory legislation, facilities and equipment, quality of professional expertise residing within the professional staff, curriculum organization and design, instructional models, and the quality of the educational leadership. In addition, factors such as community aspiration, values, and attitudes are directly related to the quality of schools. The answer to the question may be related to pupil abilities, aptitudes and interests.

In attempting to provide an answer to the question, one may isolate and analyze various sub-systems within a total school system. That is, the question may be translated to "How good is our curriculum?", "How good is our management system?","How good are our teachers?", "How good is our transportation system?", etc. One must recognize that extrapolating an answer to the question, "How good are our schools?" from the evaluation of a highly specific sub-system is

a partial answer. Generally, the results of the evaluation of a sub-system generate questions relating to the quality of all other sub-systems. The only real process for arriving at the answer is a continuous planning, implementation, and evaluation program.

It has been stated that the schools reflect to a large extent, the values, philosophy, and perceptions of the social system supporting the schools. Of equal importance is the effect the schools have upon the social system. Since the strands of social fabric and those of educational process are inextricably woven into the schools, it becomes apparent that one must determine if the schools' curricula are adequately satisfying the many interfaces of education within the total social pattern.

The curriculum becomes the instrument which projects educational objectives, a body of subject matter, provisions for interaction in the learning experiences, and a method of evaluation relative to objectives. Also included in the curriculum are control measures to be employed by the school system to oversee the learning of the pupil. Thus, the curriculum becomes a sequence of potential learning experiences established in the school for the purpose of developing the pupil, intellectually, socially and psychologically.

Comprehensive Educational Program

Through the leadership of the State Department of Education, the schools of West Virginia have "a vehicle which will provide and stimulate leadership in the development of a high-quality educational

program."[1] This plan is the Comprehensive Educational Program (CEP). The CEP is a plan through which the schools of West Virginia provide the academic, vocational, and social experiences necessary to develop effective citizens in a complex democratic society.[2]

The CEP provides a rationale, program discription, essential criteria (minimum conditions and minimum offerings), enrichment criteria, and Expected Measurable Outcomes in 24 areas of school management and/or pupil learning experiences. These include such activities as adult education, early childhood education, school food service, guidance, language arts, mathematics, school transportation, science, social studies, vocational agriculture, etc.

> The Comprehensive Educational Program for West Virginia's public schools, a rather sophisticated plan for improving curriculum throughout the State, has become an integral adjunct to our schools. The CEP has been viewed by many as a viable structure through which endeavors can effect curriculum change.[3]

State-County Testing Program

In September, 1962, the State Board of Education initiated a broad annual study of the academic achievement and scholastic aptitude of West Virginia public school pupils. The study was called "The State-County Testing Program."

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[1]Rex M. Smith, The Comprehensive Educational Program (Charleston, W. Va.: West Virginia State Department of Education, Revised Edition, 1970), p. 1.

[2]Ibid.

[3]White Paper on the Comprehensive Educational Program in Region II, West Virginia (Shepherdstown, W. Va.: The Curriculum Improvement Center, February, 1970), p. 1.

Studies of West Virginia's educational program by the State's educational leaders have, for many years, indicated a need for better insight into educational problems. Factors which have limited state-wide examination of these problems are:

1. Little or no information available at the State level on educational achievement and scholastic aptitude (intelligence) of West Virginia public school pupils.

2. Little or no information at the State level on the kinds of educational changes that are taking place.

3. Lack of current and continuing information which identifies direction for educational planning.

4. Many counties have good testing programs, but there are none identical either in terms of tests used or time of year given.

5. The State's educational program has been judged many times on information five or more years old.[4]

In view of the recognized need for better insight into the above problems, the objectives of the State-County Testing Program identified in 1962 were:

1. To provide information to the State on the educational achievement and scholastic progress of West Virginia public school pupils.

2. To provide information at the State level on the kinds of educational changes that are taking place.

3. To provide current and continuing education which identifies direction for educational planning.

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[4]Rex M. Smith, First Report, West Virginia State-County Testing Program (Charleston, W. Va.: West Virginia State Department of Education, April, 1963), p. 1.

4. To develop "test continuity" across the State in terms of tests used, grades tested, and time of year tests are administered.

5. To provide current information on the State's educational program.

6. To provide data for the evaluation of the programs of instruction and curriculum.

7. To provide data for pupil guidance and counseling, both educational and vocational.[5]

By the academic year 1968-69, the objectives of the State-County Testing Program had evolved into the following:

1. To provide new, current, state-wide information on the scholastic aptitude and achievements of West Virginia public school students.

2. To develop a basis on which a future planning for school improvement and student guidance would be more fully developed.

3. To evaluate the instructional and curricular strengths as well as weaknesses.

4. To provide additional information for planning and research purposes.[6]

Thus, it may be observed that through the leadership of the West Virginia State Department of Education, West Virginia was provided two powerful and viable tools whereby one may assess the "quality" of the public schools. However, it must be emphasized that the "tools" were developed in isolation of each other and have different purposes and goals. This point will be discussed in greater depth in succeeding sections of this report.

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[5]Ibid.

[6]Rex M. Smith, Eighth Report, 1968-69 State-County Testing Program (Charleston, W. Va.: West Virginia State Department of Education, August, 1969), p. 1.

Testing Instruments

The standardized tests administered by the West Virginia State Department of Education in the State-County Testing Program are (given in parenthesis are the grade levels in which the tests are administered): the Stanford Achievement Test (grades 3 and 6), the Otis-Lennon Mental Ability Test (grades 3 and 6), the Sequential Test of Educational Progress (grades 9 and 11) and the School College Ability Test (grades 9 and 11).

The Stanford Achievement Test measures pupil achievement in such curricular elements as: word meaning, paragraph meaning, spelling, language, arithmetic computations, arithmetic concepts, and science. The Sequential Test of Educational Progress measures pupil achievement in writing, reading, social studies, science, mathematics, and listening. The School College Ability Test provides a verbal score, quantitative score, and total score for the pupils. The Otis-Lennon Mental Ability Test provides a deviation I.Q. score.

Limitation of the Study

The Study was limited to the pupils in Region II, West Virginia; the following counties comprise Region II: Berkeley, Grant, Hampshire, Hardy, Jefferson, Mineral, Morgan, and Pendleton. The data analysis was limited to State-County Testing data available for the academic years 1965-66 through 1969-70.

Where appropriate, all data were analyzed and interpreted on a regional basis; no attempt was made to analyze individual pupil, county, or school data. Due to the nature of the study, the data were not subjected to statistical analysis to determine significant differences

among or between counties or significant differences between original mean scores and/or State and national norms.

## Objectives of the Study

The objectives of the Study were:

1. To analyze the results of the State-County Testing Program in Region II schools, by county and region, for the five year period (1965-66 through 1969-70) to determine whether discernable trends may be identified.

2. To determine if any significant disparities can be identified between the results of the State-County Testing Program and the objectives of the Comprehensive Educational Program as provided by the 1969-70 academic year data.

3. To provide an item analysis on the academic achievement tests in the State-County Testing Program for the academic year 1969-70.

## Curriculum Improvement Center

The Curriculum Improvement Center is a Project funded under the Elementary and Secondary Education Act, 1965, Title III. The Curriculum Improvement Center serves the schools of Region II and its general focus is the improvement of curriculum and instruction. The center places special emphasis upon pilot projects and the demonstration of instructional activities aimed at up-grading and enriching the quality of education and educational opportunities in Region II.

In the Center's mission to better serve the schools, it has become deeply involved in determing relevant and appropriate responses to the question "How good are our schools?" It is only through the process of attempting to secure answers to this question that the Center has become a viable and integral element in the school systems of Region II. In its efforts to better serve the schools of Region II,

the Center provided the leadership for the implementation of this Study. In addition, the Center acted as a liaison agent between/ among West Virginia, the eight county school systems in Region II, and the West Virginia State Department of Education.

## INPUTS INTO THE REGION II EDUCATIONAL ENTERPRISE

The model implemented for this study was based upon the concept that the educational enterprise in Region II is a system. The authors attempted to interpret the educational enterprise of Region II as a system consisting of three (3) basic components--inputs, processor and outputs. Inputs were defined as buildings, enrollment data, teachers, equipment and financial support; such inputs as leadership, management techniques, buses, etc., were not considered in this Study. The processor was defined as the curriculum of the schools. The outputs of the curriculum were defined as pupil behavior exhibited in the State-County Testing Program results. The Comprehensive Educational Program was defined as the control factor of the system and this Study was interpreted as "feedback" into the system. Due to the availability of a complete set of contemporary data, all inputs were related to the 1968-69 academic year.

### Pupil Enrollment

Net Elementary Enrollment. The elementary schools of Region II enrolled 16,299 pupils. Elementary pupils represented approximately 57.6 per cent of the total enrollment in the schools of Region II, see Table I. These students were housed in 85 elementary school buildings and each elementary school held an average of approximately 192 pupils.

Net Secondary Enrollment. The secondary schools of Region II enrolled 11,990 pupils. Secondary pupils represented approximately 42.4 per cent of the total enrollment in the schools of Region II, see Table I. These pupils were housed in 33 secondary school buildings;

TABLE I

NUMBER OF ELEMENTARY SCHOOLS NET ELEMENTARY ENROLLMENT,
SECONDARY SCHOOLS, AND NET SECONDARY ENROLLMENT: REGION II, 1968-69

| County | No. of Elementary Buildings | Net Elementary Enrollment | No. of Secondary Buildings | Net Secondary Enrollment | Total Enrollment |
|---|---|---|---|---|---|
| Berkeley | 17 | 4,503 | 5 | 3.291 | 7,794 |
| Grant | 8 | 1,118 | 4 | 927 | 2,045 |
| Hampshire | 9 | 1,369 | 5 | 1,178 | 2,547 |
| Hardy | 8 | 1,225 | 3 | 947 | 2,172 |
| Jefferson | 18 | 2,865 | 4 | 1,867 | 4,732 |
| Mineral | 14 | 2,952 | 8 | 2,313 | 5,265 |
| Morgan | 6 | 1,119 | 2 | 987 | 2,106 |
| Pendleton | 5 | 1,148 | 2 | 480 | 1,628 |
| Region II | 85 | 16,299 | 33 | 11,990 | 28,289 |
| W. Va. | 1,300 | 235,627 | 585 | 184,720 | 420,347 |

Source: 1968-69 Educational Statistical Summary, W. Va. State Department of Education, Rex M. Smith.

the mean enrollment per secondary school was approximately 363 pupils.

The schools of Region II enrolled 28,289 pupils, grades 1-12, during the academic year 1968-69. The total number of school buildings in Region II was 118.

## Instructional Personnel

Elementary Teachers. Table II provides data relating to the grade of certificate held by the elementary teachers in Region II, 1968-69. The region employed 669 teachers and of this number, approximately 57.1 per cent held a Bachelor's Degree, 13.3 per cent had 15 semester hours above the Bachelor's Degree, 11.7 per cent held the Master's Degree, 2.2 per cent had earned 15 semester hours credit above the Master's Degree, and 1.3 per cent had earned 30 semester hours above the Master's Degree. In addition, approximately 14.3 per cent of the elementary teachers were teaching on a second, third, or fourth class certificate. In comparison to the total population of elementary teachers in West Virginia, the elementary teachers in Region II appeared to hold a proportionately less number of Master's Degrees and a proportionately greater number of second, third, or fourth class certificates. The Region II elementary teachers appeared to hold a proportionately greater number of Bachelor's Degrees in comparison to their peer group in West Virginia.

Secondary Teachers. Table III presents data relating to the grade of certificate held by the secondary teachers of Region II, 1968-69. The Region employed 596 secondary teachers. The data indicates that approximately 57.4 per cent of the secondary teachers held Bachelor's Degrees, 15.8 per cent held the Bachelor's Degree plus 15 semester hours,

TABLE II

ELEMENTARY INSTRUCTIONAL PERSONNEL BY GRADE OF CERTIFICATE: 1968-69

| County | M. A. +30 | Per Cent | M. A. +15 | Per Cent | M. A. | Per Cent | B. A. +15 | Per Cent | B. A. | Per Cent | Second - Fourth Class | Per Cent | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Berkeley | 4 | 2.3 | - | 0.0 | 21 | 11.9 | 14 | 7.9 | 98 | 55.4 | 40 | 22.6 | 177 |
| Grant | - | 0.0 | - | 0.0 | 5 | 10.9 | 6 | 13.0 | 26 | 56.5 | 9 | 19.6 | 46 |
| Hampshire | - | 0.0 | 2 | 3.8 | 8 | 15.1 | 12 | 22.6 | 25 | 47.2 | 6 | 11.3 | 53 |
| Hardy | 1 | 1.9 | 3 | 5.7 | 6 | 11.3 | 14 | 26.4 | 21 | 39.6 | 8 | 15.1 | 53 |
| Jefferson | 1 | 0.8 | 1 | 0.8 | 17 | 14.2 | 11 | 9.2 | 89 | 74.2 | 1 | 0.8 | 120 |
| Mineral | 2 | 1.7 | 5 | 4.2 | 9 | 7.6 | 25 | 21.0 | 62 | 52.1 | 16 | 13.4 | 119 |
| Morgan | 1 | 2.2 | - | 0.0 | 6 | 13.0 | 3 | 6.5 | 27 | 58.7 | 9 | 19.6 | 46 |
| Pendleton | - | 0.0 | 4 | 7.3 | 6 | 10.9 | 4 | 7.3 | 34 | 61.8 | 7 | 12.7 | 55 |
| Region | 9 | 1.3 | 15 | 2.2 | 78 | 11.7 | 89 | 13.3 | 382 | 57.1 | 96 | 14.3 | 669 |
| W. Va. | 167 | 1.7 | 230 | 2.4 | 1,524 | 15.7 | 1,198 | 12.3 | 5,288 | 54.4 | 1,317 | 13.5 | 9,724 |

Source: 1968-69 Educational Statistical Summary, W. Va. State Department of Education, Rex M. Smith

TABLE III

SECONDARY INSTRUCTIONAL PERSONNEL BY GRADE OF CERTIFICATE: 1968-69

| County | M. A. +30 | Per Cent | M. A. +15 | Per Cent | M. A. | Per Cent | B. A. +15 | Per Cent | B. A. | Per Cent | Second - Fourth Class | Per Cent | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| erkeley | - | 0.0 | 1 | 0.6 | 25 | 15.9 | 13 | 8.3 | 113 | 72.0 | 5 | 3.2 | 157 |
| rant | 4 | 8.7 | 1 | 2.2 | 9 | 19.6 | 8 | 17.4 | 23 | 50.0 | 1 | 2.2 | 46 |
| ampshire | 3 | 3.6 | 3 | 5.4 | 11 | 19.6 | 7 | 12.5 | 32 | 57.1 | 1 | 1.8 | 56 |
| ardy | 5 | 11.1 | 1 | 2.2 | 14 | 31.1 | 8 | 17.8 | 17 | 37.7 | - | 0.0 | 45 |
| efferson | - | 0.0 | 8 | 7.6 | 15 | 14.3 | 14 | 13.3 | 68 | 64.8 | - | 0.0 | 105 |
| ineral | 4 | 3.5 | 4 | 3.5 | 22 | 19.3 | 28 | 24.6 | 51 | 44.7 | 5 | 4.4 | 114 |
| organ | 1 | 2.0 | 1 | 2.0 | 9 | 18.0 | 10 | 20.0 | 21 | 54.0 | 2 | 4.0 | 50 |
| endleton | 2 | 8.7 | 1 | 4.3 | 3 | 13.0 | 6 | 26.1 | 11 | 47.8 | - | 0.0 | 23 |
| egion II | 18 | 3.0 | 20 | 3.4 | 108 | 18.1 | 94 | 15.8 | 342 | 57.4 | 14 | 2.3 | 596 |
| . Va. | 306 | 3.5 | 377 | 4.3 | 2,042 | 23.3 | 1,304 | 14.9 | 4,591 | 52.5 | 132 | 1.5 | 8,752 |

ource: 1968-69 Educational Statistical Summary, W. Va. State Department of Education, Rex M. Smith

18.1 per cent held the Master's Degree and 3.4 per cent held the Master's Degree plus 30 semester hours. In addition approximately 2.3 per cent of the secondary teachers were teaching on a second, third or fourth class certificate. In comparison to the total number of secondary teachers in West Virginia, it appears that the secondary teachers in Region II held a proportionately greater number of Bachelor's Degrees, a lesser proportion of Master's Degrees, and a greater proportion of second, third, and fourth class certificates.

Financial Resources

As given in Table IV, it can be observed that the schools of Region II expended approximately $540 per pupil in current expenditures. This approximates the mean current expenditures per pupil expended by the State of West Virginia ($541) during 1968-69.

TABLE IV

ESTIMATED CURRENT EXPENDITURES
PER PUPIL ENROLLED: 1968-69

| County | Current Expenditures Per Pupil |
|---|---|
| Berkeley | $ 505 |
| Grant | 556 |
| Hampshire | 599 |
| Hardy | 532 |
| Jefferson | 571 |
| Mineral | 547 |
| Morgan | 493 |
| Pendleton | 552 |
| Region II | 540 |
| West Virginia | $ 541 |

Source: Rankings of the Counties: 1969, West Virginia Education Association.

TABLE V

VALUE OF BUILDINGS, GROUNDS, AND EQUIPMENT: REGION II, 1968-69

| County | Grounds | Buildings | Furniture | Apparatus | Libraries | Teach. Aids & Ed. Mat. | School Buses | Trans. Equip. | Total |
|---|---|---|---|---|---|---|---|---|---|
| Berkeley | $ 250,000 | $ 5,583,500 | $ 184,820 | $ 64,750 | $100,612 | $208,200 | $181,283 | $ 47,165 | $ 6,620,330 |
| Grant | $ 50,000 | $ 3,400,000 | $ 150,000 | $ 30,000 | $ 40,000 | $ 35,000 | $ 60,000 | $ 10,000 | $ 3,775,000 |
| Hampshire | $ 65,000 | $ 3,000,000 | $ 120,000 | $ 45,500 | $ 45,500 | $ 80,000 | $103,000 | $ 30,000 | $ 3,489,000 |
| Hardy | $ 25,335 | $ 1,042,000 | $ 114,000 | $ 60,000 | $ 35,000 | $ 45,000 | $ 80,000 | $ -- | $ 1,401,335 |
| Jefferson | $ 151,500 | $ 3,778,610 | $ 298,000 | $130,000 | $118,800 | $ 90,000 | $148,500 | $ 42,000 | $ 4,757,410 |
| Mineral | $ 549,337 | $ 4,860,500 | $ 287,345 | $346,000 | $110,000 | $103,000 | $157,200 | $ 60,000 | $ 6,473,382 |
| Morgan | $ 63,000 | $ 1,505,000 | $ 102,000 | $ 25,000 | $ 36,000 | $ 42,000 | $ 66,000 | $ 25,000 | $ 1,864,000 |
| Pendleton | $ 92,400 | $ 1,453,000 | $ 47,000 | $ 19,000 | $ 34,500 | $ 31,000 | $112,000 | $ 9,100 | $ 1,798,000 |
| Region II | $1,246,572 | $24,622,610 | $1,303,165 | $720,250 | $520,412 | $634,000 | $907,983 | $223,265 | $30,178,457 |

Source: 1968-69 Educational Statistical Summary, W. Va. State Department of Education, Rex M. Smith.

Data presented in Table V is a summary of the value of buildings, grounds, and equipment held by the schools of Region II, 1968-69. It can be observed that the citizens of Region II have invested $30,178,457 for school buildings, grounds and equipment. The greatest proportion of these funds (approximately 81.6 per cent) were invested in school buildings.

TABLE VI

CURRENT EXPENDITURES: REGION II, 1968-69

| County | Current Expenditures |
|---|---|
| Berkeley | $ 3,938,266.51 |
| Grant | 1,517,745.54 |
| Hampshire | 1,394,743.93 |
| Hardy | 1,234,019.73 |
| Jefferson | 2,463,743.51 |
| Mineral | 2,526,643.98 |
| Morgan | 1,072,242.65 |
| Pendleton | 887,933.60 |
| Region II | $15,035,321.45 |

Source: 1968-69 Educational Statistical Summary, W. Va. State Department of Education, Rex M. Smith.

In addition to the investment of approximately 30,000,000 in buildings, grounds, and equipment, the citizens of Region II expended $15,035,321.45 in current expenditures during the academic year 1968-69, see Table VI. These figures indicate that the basic capitol investment and the operation of the schools in Region II required the expenditure of large sums of monies.

In addition to the expenditure of funds by the general public to support the institution of "free education", one must also consider the investment in education made by the students. This investment is

usually entitled "foregone earnings."

In determining the true financial inputs into the schools of Region II one must consider two factors: (1) the financial support provided by citizens through taxes, gifts, etc., and (2) the investment made by students in terms of monies they may have earned if they were not attending the schools. It is recognized that foregone earnings are absent at the elementary level due to child labor laws, but foregone earnings are a reality at the secondary level. In an industrial nation such as America, these costs are borne by the student or his family. It is apparent that these costs are usually neglected by writers in the field of school finance.

Theodore W. Schultze has shown that the investment by secondary students in earnings foregone are greater than the costs borne by persons other than the student or his family.[7] Earnings foregone by students represent approximately 60 per cent of the "total costs" of schooling per student and current expenditures represent approximately 40 per cent of the "total costs."[8]

In applying Professor Schultze's formula to determine the total financial investment in the schools of Region II, it was calculated that the secondary pupils of Region II invested approximately $10,000,000 as foregone earnings into their education. Therefore, the "total costs" required to operate the schools of Region II during 1968-69 was approximately $25,000,000 ($15,000,000 in current expenditures and $10,000,000 in foregone earnings by secondary students).

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[7]Theodore W. Schultze, The Economic Value of Edueation (New York: Columbia University Press, 1967), p. 2.

[8]Ibid., p. 28.

Summary

In summary, the basic inputs for the schools of Region II consisted of 28,289 pupils, 1,265 teachers, an investment of $30,178,457 in buildings, grounds and equipment, 118 schools valued at $24,622,610, a yearly current expenditure of $15,035,321, and an investment of $ 9,711,900 in foregone earnings by the secondary students. The outputs generated by the schools will be discussed in the following secions of this report.

## RESULTS OF THE WEST VIRGINIA STATE-COUNTY TESTING PROGRAM IN REGION II

This section of the Report presents the basic data collected during the administration of the State-County Testing Program in Region II schools during the period 1965-66 through 1969-70. The data were collected from two sources, the State Department of Education and the administrative offices of the county school systems. Approximately 90 per cent of the data retrieved for analysis was obtained at the State Department of Education. For data not available at the State Department, an effort was made to collect the missing data in the files of the local school systems; this resulted in retrieving an additional 10 per cent of the data. In observing the data presented in Tables VII through XXVI, the reader will note blank spaces in which data are not reported; these data were not available at the State or local level.

### Holding Power of Region II Schools

One measure of the quality of schools is the relative "holding power" the schools have on their pupils. Holding power in this Study was defined as the per cent of 5th grade pupils who graduates from high school seven years later.

Presented in Table VI-A is the per cent change in holding power of Region II schools during the period 1962-63 through 1968-69. During the Spring of 1963, the high schools of Region II graduated approximately 51.4 per cent of the Region's 5th grade enrollment of 1955-56. During the Spring of 1969, the Region's high schools graduated approximately 62.1 per cent of the Region's 5th grade enrollment of 1961-62. This change between 1963 and 1969 represented an increase of 10.7 percentage

TABLE VI-A

PER CENT CHANGE IN "HOLDING POWER" OF REGION II SCHOOLS: 1962-63, 1968-69

| County | High School Graduates in Spring 1963 as Per Cent of 5th Grade Enrollment in 1955-56 | High School Graduates in Spring 1969 as Per Cent of 5th Grade Enrolment in 1961-62 | Net Gain | Per Cent Change |
|---|---|---|---|---|
| Berkeley | 49.2 | 61.6 | +12.4 | 25.2 |
| Grant | 48.3 | 65.6 | +17.3 | 35.8 |
| Hampshire | 44.0 | 46.6 | + 2.6 | 5.9 |
| Hardy | 57.7 | 64.7 | + 7.0 | 12.1 |
| Jefferson | 41.4 | 53.3 | +11.9 | 28.7 |
| Mineral | 65.0 | 74.1 | + 9.1 | 14.0 |
| Morgan | 45.1 | 51.0 | + 5.9 | 13.1 |
| Pendleton | 54.9 | 59.8 | + 4.9 | 8.9 |
| Region | 51.4 | 62.1 | +10.7 | 20.8 |
| W. Va. | 50.7 | 63.5 | +12.8 | 25.2 |

Source: Rankings of the Counties, 1965, 1970, West Virginia Education Association.

points or a per cent change of +20.8 per cent in the holding power of the Region II schools. During this same period of time, West Virginia, as a whole, increased the holding power of the schools by 25.2 per cent.

It is apparent that a continued and concerted effort must be made in order for the Region to reach the mean per cent change of the holding power of the schools in relation to the mean per cent gain made by all the schools in West Virginia. Only two sub-systems (counties) in the Region exceeded the West Virginia mean per cent increase in holding power of the schools.

Otis-Lennon Mental Ability Test

The Otis-Lennon Mental Ability Test has been designed to provide a comprehensive, carefully articulated assessment of the general mental ability or scholastic aptitude of pupils in American schools. The tests were constructed to yield a dependable measurement of the general intellective ability factor. It should be clearly understood that the test does not measure the innate mental capacity of the pupil.

Presented in Tables VII through XXII are data related to the results of the administration of the Otis-Lennon to pupils in grades 3 and 6 during the period 1965-70. Interpretations of these data appear to indicate that the pupils of Region II, as a group, may be regarded as having average intellectual ability as measured by the Otis-Lennon Mental Ability Test. Further scrutiny of the Otis-Lennon data indicates that although the interpretation that the Region's pupils hold an average intellectual ability, there is a strong tendency to score on the negative side of the national mean (100.00).

TABLE VII

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 3
PUPILS ON THE OTIS-LENNON AND STANFORD ACHIEVEMENT TESTS: 1965-70, BERKELEY COUNTY

| Academic Year | Otis-Lennon* | | Stanford Achievement Test** | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Word Mean | | Paragraph Mean | | Science Soc. St. | | Spelling | | Wd. St. Skills | | Language | | Arith. Comp. | | Arith. Conc. | |
| | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD |
| 1965-66 | 99.0 | 14.0 | 3.3 | 0.9 | 3.5 | 0.9 | 3.1 | 1.1 | 3.4 | 0.9 | 3.4 | 1.6 | 3.6 | 1.1 | 3.6 | 0.6 | 3.8 | 1.1 |
| 1966-67 | 100.5 | 17.6 | 3.3 | 0.8 | 3.4 | 0.9 | 2.9 | 1.0 | 3.5 | 1.0 | 3.4 | 1.6 | 3.6 | 1.1 | 3.5 | 0.6 | 3.6 | 1.1 |
| 1967-68 | 97.6 | 14.4 | 3.3 | 0.9 | 3.4 | 1.0 | 3.0 | 1.0 | 3.5 | 1.0 | 3.3 | 1.6 | 3.5 | 1.1 | 3.5 | 0.7 | 3.5 | 1.0 |
| 1968-69 | 99.0 | 14.1 | 3.2 | 0.8 | 3.4 | 1.0 | 3.0 | 1.1 | 3.5 | 1.0 | 3.5 | 1.7 | 3.5 | 1.0 | 3.5 | 0.6 | 3.6 | 1.1 |
| 1969-70 | 99.2 | 13.4 | 3.3 | 0.9 | 3.3 | 1.0 | 2.9 | 1.0 | 3.3 | 1.1 | 3.4 | 1.6 | 3.5 | 1.1 | 3.5 | 0.6 | 3.6 | 1.1 |



TABLE VIII

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 6
PUPILS ON THE OTIS-LENNON AND STANFORD ACHIEVEMENT TESTS: 1965-70, BERKELEY COUNTY

| Academic Year | Otis-Lennon* | | Stanford Achievement Test** | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Word Mean | | Paragraph Mean | | Spelling | | Language | | Arith. Comp. | | Arith. Conc. | | Arith. Appl. | | Soc. St. | | Science | |
| | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD |
| 1965-66 | 97.9 | 13.7 | 5.6 | 1.5 | 6.0 | 1.7 | 6.0 | 1.9 | 5.8 | 2.0 | 6.3 | 1.6 | 6.2 | 1.4 | 6.3 | 1.9 | 5.9 | 1.7 | 6.0 | 2.1 |
| 1966-67 | 98.0 | 13.7 | 5.8 | 1.5 | 6.2 | 1.8 | 6.2 | 1.7 | 6.1 | 2.0 | 6.5 | 1.6 | 6.4 | 1.6 | 6.6 | 2.0 | 6.0 | 1.7 | 6.2 | 2.1 |
| 1967-68 | 95.1 | 13.1 | 5.8 | 1.5 | 6.1 | 1.7 | 6.2 | 1.9 | 6.2 | 2.1 | 6.4 | 1.5 | 6.4 | 1.6 | 6.7 | 2.1 | 6.0 | 1.7 | 6.1 | 2.0 |
| 1968-69 | 97.5 | 13.1 | 5.8 | 1.5 | 6.3 | 1.7 | 6.3 | 1.8 | 6.3 | 2.1 | 6.1 | 1.5 | 6.4 | 1.5 | 6.6 | 2.0 | 6.1 | 1.7 | 6.3 | 2.1 |
| 1969-70 | 97.5 | 14.5 | 5.9 | 1.5 | 6.2 | 1.8 | 6.2 | 1.8 | 6.3 | 2.0 | 5.9 | 1.3 | 6.3 | 1.5 | 6.5 | 2.1 | 5.9 | 1.7 | 6.2 | 2.2 |

*I.Q. Scores
**Grade Level Equivalent Scores

TABLE IX

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 3
PUPILS ON THE OTIS-LENNON AND STANFORD ACHIEVEMENT TESTS: 1965-70, GRANT COUNTY

| Academic Year | Otis-Lennon* | | Stanford Achievement Test** | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Word Mean | | Paragraph Mean | | Science Soc. St. | | Spell-ing | | Wd. St. Skills | | Lang-uage | | Arith. Comp. | | Arith. Conc. | |
| | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD |
| 1965-66 | | | 3.3 | 1.0 | 3.3 | 1.0 | 3.5 | 1.1 | 3.5 | 1.1 | 3.1 | 1.4 | 3.6 | 1.0 | 3.7 | 0.7 | 3.9 | 1.1 |
| 1966-67 | 95.4 | 13.4 | 3.1 | 0.7 | 3.2 | 0.8 | 3.3 | 1.1 | 3.2 | 0.9 | 2.8 | 1.2 | 3.4 | 0.9 | 3.6 | 0.7 | 3.6 | 1.0 |
| 1967-68 | 93.9 | 11.9 | 3.2 | 0.9 | 3.2 | 0.9 | 3.3 | 1.3 | 3.6 | 1.6 | 3.1 | 1.4 | 3.7 | 1.1 | 3.6 | 0.7 | 3.6 | 1.1 |
| 1968-69 | 94.7 | 12.0 | 3.1 | 0.8 | 3.2 | 0.9 | 3.4 | 1.2 | 3.4 | 1.0 | 3.1 | 1.5 | 3.4 | 0.9 | 3.7 | 0.7 | 3.6 | 1.1 |
| 1969-70 | 94.6 | 13.5 | 3.1 | 1.0 | 3.1 | 0.9 | 3.2 | 1.2 | 3.2 | 1.1 | 3.0 | 1.6 | 3.3 | 1.1 | 3.8 | 0.8 | 3.5 | 1.2 |

TABLE X

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 6
PUPILS ON THE OTIS-LENNON AND STANFORD ACHIEVEMENT TESTS: 1965-70, GRANT COUNTY

| Academic Year | Otis-Lennon* | | Stanford Achievement Test** | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Word Mean | | Paragraph Mean | | Spell-ing | | Lang-uage | | Arith. Comp. | | Arith. Conc. | | Arith. Appl. | | Soc. St. | | Science | |
| | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD |
| 1965-66 | | | 5.6 | 1.4 | 6.3 | 1.8 | 6.4 | 1.8 | 6.2 | 1.9 | 7.0 | 1.6 | 6.6 | 1.6 | 7.1 | 2.0 | 6.0 | 1.6 | 6.6 | 2.3 |
| 1966-67 | 101.7 | 10.9 | 5.7 | 1.4 | 6.4 | 1.9 | 6.3 | 1.8 | 6.3 | 2.0 | 6.7 | 1.6 | 6.6 | 1.5 | 7.0 | 2.0 | 6.0 | 1.8 | 6.6 | 2.4 |
| 1967-68 | 99.2 | 12.9 | 5.6 | 1.3 | 6.3 | 1.7 | 6.4 | 2.0 | 6.6 | 2.2 | 6.6 | 1.5 | 6.5 | 1.4 | 7.0 | 2.2 | 6.2 | 1.8 | 6.9 | 2.4 |
| 1968-69 | 101.1 | 13.7 | 5.5 | 1.4 | 6.1 | 1.8 | 6.5 | 2.1 | 6.5 | 2.2 | 6.4 | 1.6 | 6.6 | 1.6 | 6.8 | 2.1 | 6.1 | 1.9 | 6.6 | 2.3 |
| 1969-70 | 98.2 | 11.0 | 5.7 | 1.3 | 6.1 | 1.6 | 6.2 | 1.7 | 6.3 | 1.9 | 5.8 | 1.3 | 6.4 | 1.3 | 6.5 | 1.8 | 5.9 | 1.5 | 6.4 | 2.0 |

*I.Q. Scores
**Grade Level Equivalent Scores

TABLE XI

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 3
PUPILS ON THE OTIS-LENNON AND STANFORD ACHIEVEMENT TESTS: 1965-70, HAMPSHIRE COUNTY

| Academic Year | Otis-Lennon* | | Stanford Achievement Test** | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Word Mean | | Paragraph Mean | | Science Soc. St. | | Spelling | | Wd. St. Skills | | Language | | Arith. Comp. | | Arith. Conc. | |
| | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD |
| 1965-66 | 94.6 | 15.4 | | | | | | | | | | | | | | | | |
| 1966-67 | 94.0 | 14.4 | | | | | | | | | | | | | | | | |
| 1967-68 | 95.2 | 14.5 | 3.0 | 0.8 | 3.2 | 1.0 | 3.3 | 1.3 | 3.3 | 1.1 | 3.5 | 1.7 | 3.7 | 1.3 | 3.6 | 0.9 | 3.4 | 1.2 |
| 1968-69 | 92.6 | 13.0 | 2.9 | 0.9 | 3.1 | 0.9 | 3.3 | 1.1 | 3.2 | 0.9 | 3.0 | 1.4 | 3.3 | 0.9 | 3.5 | 0.8 | 3.2 | 1.0 |
| 1969-70 | 94.4 | 14.2 | 3.1 | 0.9 | 3.3 | 1.0 | 3.3 | 1.2 | 3.3 | 1.0 | 3.6 | 1.8 | 3.7 | 1.1 | 3.7 | 0.8 | 3.5 | 1.2 |

TABLE XII

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 6
PUPILS ON THE OTIS-LENNON AND STANFORD ACHIEVEMENT TESTS: 1965-70, HAMPSHIRE COUNTY

| Academic Year | Otis-Lennon* | | Stanford Achievement Test** | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Word Mean | | Paragraph Mean | | Spelling | | Language | | Arith. Comp. | | Arith. Conc. | | Arith. Appl. | | Soc. St. | | Science | |
| | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD |
| 1965-66 | 93.7 | 13.7 | 5.2 | 1.4 | 5.6 | 1.6 | 5.8 | 2.0 | 5.6 | 2.0 | 6.0 | 1.5 | 5.5 | 1.4 | 5.7 | 1.8 | 5.6 | 1.4 | 5.5 | 1.9 |
| 1966-67 | 99.3 | 12.5 | | | | | | | | | | | | | | | | | | |
| 1967-68 | 94.8 | 16.1 | 5.4 | 1.5 | 5.7 | 1.7 | 6.0 | 2.0 | 5.6 | 2.0 | 6.2 | 1.7 | 5.7 | 1.4 | 5.8 | 1.8 | 5.4 | 1.5 | 5.7 | 2.1 |
| 1968-69 | 93.6 | 13.6 | 5.2 | 1.2 | 5.5 | 1.6 | 5.7 | 1.7 | 5.3 | 1.9 | 5.9 | 1.6 | 5.7 | 1.4 | 5.6 | 1.9 | 5.5 | 1.5 | 5.6 | 1.8 |
| 1969-70 | 95.6 | 12.8 | 5.6 | 1.4 | 5.9 | 1.9 | 6.2 | 1.7 | 6.1 | 2.1 | 6.7 | 1.8 | 6.1 | 1.6 | 6.0 | 2.0 | 6.1 | 1.8 | 6.1 | 2.2 |

*I.Q. Scores
**Grade Level Equivalent Scores

TABLE XIII

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 3
PUPILS ON THE OTIS-LENNON AND STANFORD ACHIEVEMENT TESTS: 1965-70, HARDY COUNTY

| Academic Year | Otis-Lennon* | | Stanford Achievement Test** | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Word Mean | | Paragraph Mean | | Science Soc. St. | | Spelling | | Wd. St. Skills | | Language | | Arith. Comp. | | Arith. Conc. | |
| | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD |
| 1965-66 | 93.3 | 12.8 | 3.0 | 0.8 | 3.2 | 0.8 | 2.9 | 1.0 | 3.2 | 1.0 | 3.4 | 1.5 | 3.1 | 0.8 | 3.4 | 0.7 | 3.3 | 1.0 |
| 1966-67 | 94.7 | 15.1 | 3.0 | 0.8 | 3.2 | 0.9 | 3.0 | 1.1 | 3.4 | 1.0 | 3.2 | 1.5 | 3.3 | 1.0 | 3.4 | 0.7 | 3.4 | 1.2 |
| 1967-68 | 93.0 | 13.4 | 3.1 | 0.9 | 3.3 | 0.9 | 3.1 | 1.1 | 3.4 | 1.0 | 3.4 | 1.5 | 3.3 | 0.9 | 3.5 | 0.6 | 3.4 | 1.0 |
| 1968-69 | 91.3 | 13.2 | 2.9 | 0.8 | 3.1 | 0.8 | 2.9 | 1.0 | 3.1 | 1.1 | 3.3 | 1.6 | 3.2 | 0.9 | 3.4 | 0.7 | 3.3 | 1.1 |
| 1969-70 | 94.1 | 13.5 | 3.0 | 0.8 | 3.2 | 1.0 | 3.0 | 1.1 | 3.3 | 1.2 | 3.6 | 1.8 | 3.3 | 0.9 | 3.4 | 0.7 | 3.6 | 1.3 |

TABLE XIV

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 6
PUPILS ON THE OTIS-LENNON AND STANFORD ACHIEVEMENT TESTS: 1965-70, HARDY COUNTY

| Academic Year | Otis-Lennon | | Stanford Achievement Test** | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Word Mean | | Paragraph Mean | | Spelling | | Language | | Arith. Comp. | | Arith. Conc. | | Arith. Appl. | | Soc. St. | | Science | |
| | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD |
| 1965-66 | 99.6 | 14.9 | 5.7 | 1.6 | 5.9 | 1.9 | 6.5 | 1.9 | 5.8 | 2.0 | 6.3 | 1.4 | 6.1 | 1.4 | 6.3 | 1.9 | 5.8 | 1.7 | 5.9 | 2.1 |
| 1966-67 | 101.4 | 12.4 | 5.8 | 1.4 | 6.2 | 1.7 | 6.4 | 1.9 | 6.0 | 1.9 | 6.8 | 1.7 | 6.3 | 1.4 | 6.4 | 1.9 | 6.0 | 1.7 | 6.2 | 2.1 |
| 1967-68 | 97.5 | 12.0 | 5.8 | 1.6 | 6.3 | 1.8 | 6.4 | 1.8 | 6.3 | 1.9 | 6.9 | 1.4 | 6.3 | 1.5 | 6.4 | 1.8 | 6.0 | 1.5 | 6.3 | 2.1 |
| 1968-69 | 98.5 | 13.7 | 5.7 | 1.7 | 6.1 | 1.9 | 6.5 | 2.0 | 6.1 | 2.1 | 6.8 | 1.9 | 6.3 | 1.8 | 6.4 | 2.2 | 6.1 | 1.9 | 6.5 | 2.4 |
| 1969-70 | 97.6 | 15.1 | 5.7 | 1.4 | 6.1 | 1.9 | 6.1 | 1.9 | 5.9 | 2.0 | 6.8 | 2.0 | 6.4 | 1.6 | 6.5 | 2.1 | 5.9 | 1.9 | 6.1 | 2.2 |

*I.Q. Scores
**Grade Level Equivalent Scores

TABLE XV

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 3
PUPILS ON THE OTIS-LENNON AND STANFORD ACHIEVEMENT TESTS: 1965-70, JEFFERSON COUNTY

| Academic Year | Otis-Lennon* | | Stanford Achievement Test** | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Word Mean | | Paragraph Mean | | Science Soc. St. | | Spelling | | Wd. St. Skills | | Language | | Arith. Comp. | | Arith. Conc. | |
| | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD |
| 1965-66 | 96.0 | 13.4 | 3.4 | 1.0 | 3.4 | 1.0 | 3.5 | 1.4 | 3.5 | 1.0 | 3.7 | 1.6 | 3.8 | 1.1 | 3.6 | 0.7 | 3.9 | 1.1 |
| 1966-67 | 94.5 | 14.3 | 3.0 | 0.6 | 3.1 | 0.7 | 2.6 | 0.9 | 3.5 | 1.2 | 3.0 | 1.3 | 3.3 | 0.9 | 3.4 | 0.5 | 3.5 | 1.0 |
| 1967-68 | 96.6 | 13.6 | 3.3 | 0.8 | 3.4 | 1.0 | 3.4 | 1.2 | 3.7 | 1.0 | 3.5 | 1.6 | 3.7 | 1.2 | 3.6 | 0.6 | 3.6 | 1.1 |
| 1968-69 | 97.1 | 14.4 | 3.3 | 0.9 | 3.4 | 1.1 | 3.4 | 1.3 | 3.8 | 1.9 | 3.8 | 1.8 | 3.7 | 1.2 | 3.6 | 0.6 | 3.6 | 1.2 |
| 1969-70 | 98.3 | 15.1 | 3.3 | 0.8 | 3.4 | 1.0 | 3.6 | 1.2 | 3.7 | 1.1 | 4.1 | 1.8 | 3.8 | 1.1 | 3.6 | 0.7 | 3.7 | 1.2 |

TABLE XVI

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 6
PUPILS ON THE OTIS-LENNON AND STANFORD ACHIEVEMENT TESTS: 1965-70, JEFFERSON COUNTY

| Academic Year | Otis-Lennon* | | Stanford Achievement Test** | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Word Mean | | Paragraph Mean | | Spelling | | Language | | Arith. Comp. | | Arith. Conc. | | Arith. Appl. | | Soc. St. | | Science | |
| | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD |
| 1965-66 | 99.4 | 13.9 | 6.2 | 1.7 | 6.4 | 1.9 | 6.7 | 1.9 | 6.6 | 2.2 | 6.8 | 1.6 | 6.6 | 1.6 | 6.7 | 2.0 | 6.3 | 1.9 | 6.7 | 2.4 |
| 1966-67 | 100.3 | 14.0 | 4.9 | 1.6 | 6.2 | 1.9 | 6.7 | 2.0 | 6.5 | 2.2 | 6.9 | 1.8 | 6.7 | 1.6 | 6.8 | 2.2 | 6.1 | 1.9 | 6.3 | 2.3 |
| 1967-68 | 97.9 | 13.7 | 6.0 | 1.6 | 6.4 | 1.8 | 6.5 | 1.8 | 6.4 | 2.1 | 6.6 | 1.6 | 6.7 | 1.5 | 6.9 | 2.0 | 6.2 | 2.0 | 6.6 | 2.4 |
| 1968-69 | 98.8 | 14.2 | 6.0 | 1.7 | 6.5 | 2.0 | 6.5 | 1.9 | 6.4 | 2.2 | 6.4 | 1.5 | 6.4 | 1.5 | 6.7 | 2.1 | 6.2 | 1.9 | 6.4 | 2.3 |
| 1969-70 | 97.5 | 13.6 | 5.9 | 1.6 | 6.2 | 1.9 | 6.4 | 1.9 | 6.2 | 2.1 | 6.0 | 1.5 | 6.1 | 1.5 | 6.2 | 2.1 | 6.0 | 1.9 | 6.3 | 2.4 |

*I.Q. Scores
**Grade Level Equivalent Scores

TABLE XVII

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 3
PUPILS ON THE OTIS-LENNON AND STANFORD ACHIEVEMENT TESTS: 1965-70, MINERAL COUNTY

| Academic Year | Otis-Lennon* | | Stanford Achievement Test** | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Word Mean | | Paragraph Mean | | Science Soc. St. | | Spelling | | Wd. St. Skills | | Language | | Arith. Comp. | | Arith. Conc. | |
| | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD |
| 1965-66 | 98.7 | 13.3 | 2.6 | 0.6 | 2.7 | 0.7 | 3.0 | 1.0 | 2.7 | 0.7 | 3.0 | 1.2 | 2.9 | 0.6 | 3.2 | 0.5 | 3.1 | 0.9 |
| 1966-67 | 97.9 | 13.4 | 2.6 | 0.6 | 2.8 | 0.6 | 3.2 | 1.2 | 3.0 | 0.8 | 3.1 | 1.4 | 3.0 | 0.6 | 3.3 | 0.7 | 3.1 | 0.9 |
| 1967-68 | 99.6 | 13.9 | 3.4 | 1.0 | 3.7 | 1.1 | 3.8 | 1.4 | 3.8 | 1.0 | 4.5 | 1.8 | 3.7 | 1.1 | 3.6 | 0.7 | 3.9 | 1.2 |
| 1968-69 | 101.1 | 14.0 | 3.4 | 1.0 | 3.7 | 1.1 | 3.9 | 1.3 | 3.7 | 1.0 | 4.6 | 1.8 | 3.8 | 1.1 | 3.6 | 0.7 | 3.9 | 1.2 |
| 1969-70 | 101.2 | 13.7 | 3.5 | 1.1 | 3.7 | 1.1 | 3.8 | 1.2 | 3.7 | 1.2 | 4.6 | 1.9 | 3.8 | 1.2 | 3.7 | 0.6 | 3.9 | 1.2 |

TABLE XVIII

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 6
PUPILS ON THE OTIS-LENNON AND STANFORD ACHIEVEMENT TESTS: 1965-70, MINERAL COUNTY

| Academic Year | Otis-Lennon* | | Stanford Achievement Test** | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Word Mean | | Paragraph Mean | | Spelling | | Language | | Arith. Comp. | | Arith. Conc. | | Arith. Appl. | | Soc. St. | | Science | |
| | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD |
| 1965-66 | 99.5 | 12.9 | 4.7 | 1.5 | 6.2 | 1.9 | 6.2 | 1.9 | 5.9 | 1.9 | 6.2 | 1.6 | 6.0 | 1.6 | 6.2 | 1.9 | 6.1 | 1.7 | 6.2 | 2.2 |
| 1966-67 | 102.4 | 12.4 | 6.3 | 1.4 | 6.9 | 1.8 | 6.7 | 1.9 | 6.7 | 2.0 | 6.7 | 1.5 | 6.7 | 1.5 | 7.3 | 2.0 | 6.7 | 1.8 | 7.0 | 2.3 |
| 1967-68 | 99.1 | 14.5 | 5.7 | 1.5 | 6.3 | 1.8 | 6.1 | 1.9 | 6.1 | 2.2 | 6.4 | 1.7 | 6.4 | 1.6 | 6.6 | 2.2 | 6.1 | 1.8 | 6.3 | 2.2 |
| 1968-69 | 99.6 | 14.5 | 5.9 | 1.7 | 6.2 | 1.9 | 6.2 | 1.9 | 6.2 | 2.2 | 6.0 | 1.5 | 6.2 | 1.5 | 6.5 | 2.1 | 6.1 | 1.9 | 6.4 | 2.4 |
| 1969-70 | 99.7 | 14.1 | 5.9 | 1.6 | 6.2 | 1.9 | 6.2 | 1.9 | 6.0 | 2.2 | 5.8 | 1.5 | 6.1 | 1.5 | 6.3 | 2.2 | 6.1 | 1.9 | 6.3 | 2.3 |

*I.Q. Scores
**Grade Level Equivalent Scores

TABLE XIX

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 3
PUPILS ON THE OTIS-LENNON AND STANFORD ACHIEVEMENT TESTS: 1965-70, MORGAN COUNTY

| Academic Year | Otis-Lennon* | | Stanford Achievement Test** | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Word Mean | | Paragraph Mean | | Science Soc. St. | | Spelling | | Wd. St. Skills | | Language | | Arith. Comp. | | Arith. Conc. | |
| | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD |
| 1965-66 | 94.5 | 11.3 | 3.4 | 1.1 | 3.4 | 1.0 | 3.8 | 1.6 | 3.9 | 1.3 | 3.7 | 1.7 | 3.8 | 1.2 | 3.3 | 0.6 | 3.8 | 1.3 |
| 1966-67 | 97.4 | 13.6 | 3.4 | 1.2 | 3.4 | 1.1 | 3.8 | 1.4 | 3.9 | 1.3 | 3.9 | 1.7 | 3.9 | 1.2 | 3.4 | 0.6 | 3.8 | 1.3 |
| 1967-68 | 94.2 | 11.8 | 3.4 | 1.0 | 3.5 | 1.0 | 3.8 | 1.3 | 4.0 | 1.1 | 3.9 | 1.7 | 3.8 | 1.1 | 3.5 | 0.7 | 3.8 | 1.2 |
| 1968-69 | 97.1 | 14.9 | 3.6 | 1.3 | 3.5 | 1.0 | 4.1 | 1.4 | 4.0 | 1.2 | 4.0 | 1.8 | 4.0 | 1.2 | 3.6 | 0.9 | 3.9 | 1.2 |
| 1969-70 | 97.2 | 14.1 | 3.6 | 1.4 | 3.5 | 1.1 | 4.1 | 1.4 | 4.0 | 1.2 | 4.0 | 1.7 | 4.0 | 1.3 | 3.7 | 0.7 | 3.9 | 1.2 |

TABLE XX

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 6
PUPILS ON THE OTIS-LENNON AND STANFORD ACHIEVEMENT TESTS: 1965-70, MORGAN COUNTY

| Academic Year | Otis-Lennon* | | Stanford Achievement Test** | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Word Mean | | Paragraph Mean | | Spelling | | Language | | Arith. Comp. | | Arith. Conc. | | Arith. Appl. | | Soc. St. | | Science | |
| | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD |
| 1965-66 | 100.5 | 12.2 | 5.7 | 1.4 | 6.0 | 1.7 | 6.2 | 1.8 | 6.1 | 2.0 | 6.4 | 1.7 | 6.0 | 1.6 | 6.0 | 1.9 | 5.7 | 1.5 | 6.0 | 1.8 |
| 1966-67 | 102.0 | 11.6 | 5.9 | 15. | 6.2 | 1.7 | 6.2 | 1.7 | 6.2 | 2.0 | 6.4 | 1.7 | 6.3 | 1.5 | 6.5 | 2.0 | 6.2 | 1.7 | 6.3 | 2.2 |
| 1967-68 | 97.7 | 12.9 | 5.9 | 1.6 | 6.3 | 1.8 | 6.3 | 1.7 | 6.4 | 2.2 | 6.1 | 1.7 | 6.4 | 1.5 | 6.3 | 2.0 | 6.0 | 1.8 | 6.6 | 2.3 |
| 1968-69 | 98.1 | 11.0 | 5.7 | 1.3 | 6.0 | 1.5 | 6.5 | 1.8 | 6.1 | 1.8 | 6.1 | 1.3 | 6.1 | 1.3 | 5.9 | 1.7 | 6.1 | 1.6 | 6.1 | 1.9 |
| 1969-70 | 96.7 | 1.37 | 5.6 | 1.5 | 6.1 | 1.7 | 6.0 | 1.7 | 6.0 | 1.9 | 6.0 | 1.4 | 6.2 | 1.7 | 6.0 | 2.0 | 6.1 | 1.8 | 6.5 | 2.3 |

*I.Q. Scores
**Grade Level Equivalent Scores

TABLE XXI

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 3
PUPILS ON THE OTIS-LENNON AND STANFORD ACHIEVEMENT TESTS: 1965-70, PENDLETON COUNTY

| | Otis-Lennon* | | Stanford Achievement Test** | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Word Mean | | Paragraph Mean | | Science Soc. St. | | Spell-ing | | Wd. St. Skills | | Lang-uage | | Arith. Comp. | | Arith. Conc. | |
| Year | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD |
| 1965-66 | 93.1 | 12.3 | 3.1 | 0.9 | 3.1 | 0.9 | 3.1 | 1.1 | 3.3 | 1.0 | 2.7 | 1.4 | 3.5 | 0.9 | 3.6 | 0.5 | 3.2 | 1.1 |
| 1966-67 | 93.3 | 13.8 | 3.1 | 0.9 | 3.1 | 0.9 | 3.3 | 1.0 | 3.4 | 0.9 | 3.0 | 1.5 | 3.2 | 0.8 | 3.5 | 0.6 | 3.3 | 1.0 |
| 1967-68 | 92.0 | 13.4 | 3.2 | 0.9 | 3.2 | 0.9 | 3.2 | 1.0 | 3.5 | 0.9 | 3.3 | 1.6 | 3.4 | 0.9 | 3.5 | 0.6 | 3.4 | 1.0 |
| 1968-69 | 91.2 | 15.2 | 3.3 | 0.9 | 3.3 | 1.1 | 3.1 | 1.1 | 3.6 | 1.0 | 3.3 | 1.7 | 3.5 | 1.1 | 3.5 | 0.7 | 3.4 | 1.2 |
| 1969-70 | 91.5 | 14.0 | 3.2 | 1.0 | 3.2 | 1.0 | 3.1 | 1.2 | 3.4 | 1.1 | 2.8 | 1.4 | 3.3 | 1.0 | 3.5 | 0.7 | 3.3 | 1.1 |

TABLE XXII

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 6
PUPILS ON THE OTIS-LENNON AND STANFORD ACHIEVEMENT TESTS: 1965-70, PENDLETON COUNTY

| | Otis-Lennon* | | Stanford Achievement Test** | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Word Mean | | Paragraph Mean | | Spell-ing | | Lang-uage | | Arith. Comp. | | Arith. Conc. | | Arith. Appl. | | Soc. St. | | Science | |
| Academic Year | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD |
| 1965-66 | 95.7 | 15.5 | 5.2 | 1.6 | 5.6 | 1.8 | 6.0 | 2.3 | 5.5 | 2.2 | 6.4 | 1.8 | 5.8 | 1.6 | 5.8 | 1.9 | 5.3 | 1.6 | 5.5 | 2.1 |
| 1966-67 | 98.7 | 13.0 | 5.6 | 1.6 | 6.0 | 1.8 | 6.2 | 1.9 | 5.6 | 2.1 | 6.3 | 1.7 | 5.8 | 1.5 | 6.0 | 2.0 | 5.4 | 1.6 | 6.0 | 2.2 |
| 1967-68 | 96.2 | 11.8 | 5.4 | 1.3 | 6.1 | 1.5 | 6.1 | 1.7 | 5.8 | 2.0 | 5.1 | 1.7 | 5.8 | 1.4 | 6.1 | 2.0 | 5.5 | 1.5 | 6.0 | 2.1 |
| 1968-69 | 95.9 | 13.9 | 5.6 | 1.5 | 6.1 | 1.9 | 6.1 | 1.8 | 5.9 | 2.2 | 6.1 | 1.9 | 5.8 | 1.6 | 6.0 | 2.0 | 5.5 | 1.7 | 5.8 | 2.2 |
| 1969-70 | 93.6 | 13.4 | 5.3 | 1.3 | 5.6 | 1.5 | 5.8 | 1.7 | 5.7 | 2.2 | 6.3 | 1.9 | 5.9 | 1.5 | 5.9 | 1.9 | 5.4 | 1.4 | 5.4 | 2.0 |

*I.Q. Scores
**Grade Level Equivalent Scores

Professional literature provides evidence that a child's socio-economic background has a considerable influence upon his performance on a standardized testing instrument. The schools of Region II should make a diligent effort in order to determine if the tendency for the pupils to score on the negative side of the national mean is due to the inappropriateness of the test or other variables. This observation is highlighted when one observes the standard deviations achieved by the pupils in comparison to the national standard deviation (16). The pupils in Region II were a more homogeneous group than the national normative sample of pupils.

Stanford Achievement Test

Data presented in Tables VII through XXII provide the mean grade level equivalent scores achieved by the pupils on the Stanford Achievement Tests, by county and sub-tests. The primary objective in the interpretation of these data was to determine if any discernable trends, either positive or negative, were observable; in addition, observations were made to determine if no trend was observable or "no change" in the behavior of the pupils could be identified. The reader is cautioned that the interpretations are limited to pupil behavior as measured by the Stanford Achievement Test.

Grade Three. The Stanford Achievement Test administered to the grade 3 pupils was composed of 8 sub-tests; these were: Word Meaning, Paragraph Meaning, Science-Social Studies, Spelling, Word Study Skills, Language, Arithmetic Computation, and Arithmetic Concepts. During the five academic years under study, it appears that there was no change in pupil behavior on the sub-tests of paragraph meaning and arithmetic

concepts. There was a slight negative trend in the science-social studies sub-test. Slight to strong positive trends were observable in the word meaning, word study skills, language, spelling, and arithmetic computation sub-tests for the third grade pupils in Region II. Thus, the third grade pupils showed a positive trend in five sub-tests, a negative trend in one sub-test and remained "unchanged" in their performance on two sub-tests of the Stanford Achievement Test.

Grade Six. The Stanford Achievement Test administered to the grade 6 pupils was composed of nine sub-tests; they were: Word Meaning, Paragraph Meaning, Spelling, Language, Arithmetic Computation, Arithmetic Concepts, Arithmetic Application, Social Studies, and Science. During the five academic year period under study, it appears that there was "no change" in pupil behavior on the sub-tests of word meaning, spelling, and social studies. A slight negative trend was observable in the arithemetic computation sub-test. Slight to strong positive trends were observed in the sub-tests of paragraph meaning, language, arithmetic concepts, arithmetic application, and science for the sixth grade pupils in Region II. Thus, the sixth grade pupils showed a positive trend in five sub-tests; a negative trend in one sub-test and remain "unchanged" on three sub-tests in their performance on the Stanford Achievement Test.

The trends were reported as Regional trends; the reader is directed to Tables VII through XXII to determine trends in specific counties. For example, Table XVII (grade 3, Mineral County) provides an example of a strong positive trend in pupil behavior as measured by the Stanford Achievement Test. As further research relating to planning in

Region II, it is suggested that decision-makers attempt to ascertain answers to the question "What variables influence pupil behavior, as measured by a standardized achievement test, to either increase, decrease, or remain unchanged?"

In terms of the frequency of observable positive or negative trends in the changes of pupil behavior, as measured by a standardized achievement test, it appears that the schools of Region II are providing learning experiences which have helped to improve the pupil's performance. The "score" reads as the following: Seventeen sub-tests were administered to the third and sixth grade pupils in Region II over a period of five academic years. The pupils showed a tendency to improve their performance on ten sub-tests, a tendency to regress in their performance on two sub-tests, and remained "unchanged" in their performance on five sub-tests.

School College Ability Test

The School College Ability Test generated verbal, quantitative and total scores. These data are reported in Tables XXIII through XXXVIII. The SCAT is a predictive test; it attempts to measure a student's ability to succeed in his school course work.

Grade Nine. During the five academic year period under study, no apparent change was found in the behavior of ninth grade pupils on the verbal score; a negative trend was found to exist in the quantitative and total scores of the SCAT.

Grade Eleven. In interpreting the data in Tables XXIII through XXXVIII relating to the eleventh grade pupils in Region II, a distinct trend is observable. The trend is negative in nature and is found in

TABLE XXIII

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 9 PUPILS ON THE SCAT AND STEP TESTS: 1965-70, BERKELEY COUNTY

| Academic Year | School College Aptitude Test* Verbal $\bar{X}$ | Verbal SD | Quantitative $\bar{X}$ | Quantitative SD | Total $\bar{X}$ | Total SD | Sequential Test of Educational Progress* Math $\bar{X}$ | Math SD | Science $\bar{X}$ | Science SD | Soc. St. $\bar{X}$ | Soc. St. SD | Read. $\bar{X}$ | Read. SD | Writ. $\bar{X}$ | Writ. SD | List. $\bar{X}$ | List. SD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1965-66 | 269.7 | 13.9 | 288.0 | 15.0 | 278.9 | 11.7 | 265.7 | 13.8 | 271.7 | 12.0 | 266.4 | 14.3 | 278.8 | 15.9 | 273.0 | 15.8 | 282.8 | 15.0 |
| 1966-67 | 269.9 | 13.8 | 287.6 | 15.7 | 278.9 | 12.1 | 264.8 | 13.2 | 271.8 | 12.1 | 265.8 | 14.5 | 276.9 | 16.8 | 273.3 | 16.0 | 282.1 | 14.8 |
| 1967-68 | 270.0 | 13.4 | 286.9 | 14.6 | 278.6 | 11.3 | 264.1 | 14.0 | 270.6 | 12.7 | 265.8 | 14.5 | 274.9 | 18.1 | 271.1 | 16.8 | 280.6 | 15.6 |
| 1968-69 | 269.7 | 14.0 | 285.4 | 14.7 | 277.9 | 11.7 | 263.8 | 13.8 | 270.9 | 12.3 | 263.2 | 14.5 | 276.0 | 16.7 | 268.7 | 16.1 | 280.5 | 15.5 |
| 1969-70 | 269.3 | 13.8 | 283.3 | 14.0 | 276.8 | 11.2 | 263.2 | 13.6 | 271.5 | 11.6 | 263.2 | 13.2 | 275.4 | 16.5 | 268.1 | 16.9 | 278.4 | 14.2 |

TABLE XXIV

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 11 PUPILS ON THE SCAT AND STEP TESTS: 1965-70, BERKELEY COUNTY

| Academic Year | School College Aptitude Test* Verbal $\bar{X}$ | Verbal SD | Quantitative $\bar{X}$ | Quantitative SD | Total $\bar{X}$ | Total SD | Sequential Test of Educational Progress* Math $\bar{X}$ | Math SD | Science $\bar{X}$ | Science SD | Soc. St. $\bar{X}$ | Soc. St. SD | Read. $\bar{X}$ | Read. SD | Writ. $\bar{X}$ | Writ. SD | List. $\bar{X}$ | List. SD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1965-66 | 278.0 | 13.6 | 295.8 | 17.1 | 286.0 | 12.9 | 277.5 | 13.6 | 280.6 | 11.3 | 274.8 | 13.0 | 290.5 | 15.9 | 285.4 | 16.9 | 289.9 | 13.7 |
| 1966-67 | 277.5 | 14.2 | 292.0 | 17.2 | 284.4 | 13.3 | 273.5 | 15.4 | 279.9 | 11.4 | 273.8 | 13.1 | 288.1 | 17.7 | 281.6 | 16.4 | 291.3 | 14.7 |
| 1967-68 | 278.4 | 11.6 | 290.5 | 13.6 | 284.2 | 10.9 | 264.8 | 13.2 | 271.8 | 12.1 | 265.8 | 14.5 | 276.9 | 16.8 | 273.3 | 16.0 | 282.1 | 14.8 |
| 1968-69 | 279.6 | 14.2 | 292.6 | 17.0 | 285.9 | 13.1 | 274.0 | 14.5 | 280.0 | 11.6 | 274.9 | 14.0 | 290.9 | 16.9 | 284.4 | 17.4 | | |
| 1969-70 | 278.6 | 13.5 | 289.8 | 16.5 | 284.1 | 12.5 | 272.9 | 13.4 | 277.3 | 11.2 | 270.3 | 12.9 | 287.0 | 16.4 | 279.2 | 16.3 | 287.9 | 12.6 |

*Raw Scores

TABLE XXV

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 9 PUPILS ON THE SCAT AND STEP TESTS: 1965-70, GRANT COUNTY

| Academic Year | School College Aptitude Test* Verbal $\bar{X}$ | Verbal SD | Quantitative $\bar{X}$ | Quantitative SD | Total $\bar{X}$ | Total SD | Sequential Test of Educational Progress* Math $\bar{X}$ | Math SD | Science $\bar{X}$ | Science SD | Soc. St. $\bar{X}$ | Soc. St. SD | Read. $\bar{X}$ | Read. SD | Writ. $\bar{X}$ | Writ. SD | List. $\bar{X}$ | List. SD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1965-66 | 268.9 | 13.4 | 288.9 | 14.0 | 278.7 | 10.8 | 266.8 | 13.3 | 272.7 | 11.9 | 264.1 | 13.9 | 279.1 | 16.0 | 272.2 | 16.3 | 284.1 | 15.7 |
| 1966-67 | 270.0 | 12.6 | 287.5 | 13.9 | 278.8 | 10.1 | 267.9 | 12.4 | 272.8 | 10.7 | 266.1 | 12.6 | 275.1 | 16.4 | 272.0 | 14.8 | 281.9 | 12.8 |
| 1967-68 | 266.2 | 13.6 | 285.4 | 15.2 | 276.1 | 11.4 | 264.9 | 13.8 | 271.8 | 13.6 | 264.7 | 14.7 | 277.0 | 16.3 | 268.5 | 15.9 | 280.8 | 13.6 |
| 1968-69 | 262.9 | 14.6 | 279.0 | 15.7 | 271.9 | 12.5 | 261.4 | 15.3 | 270.6 | 13.9 | 262.6 | 14.2 | 269.3 | 18.7 | 263.7 | 18.2 | | |
| 1969-70 | 264.2 | 13.8 | 280.8 | 14.2 | 273.3 | 11.4 | 258.7 | 15.2 | 267.2 | 11.7 | 259.5 | 13.0 | 269.9 | 18.8 | 263.5 | 17.2 | 279.0 | 14.7 |

TABLE XXVI

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 11 PUPILS ON THE SCAT AND STEP TESTS: 1965-70, GRANT COUNTY

| Academic Year | School College Aptitude Test* Verbal $\bar{X}$ | Verbal SD | Quantitative $\bar{X}$ | Quantitative SD | Total $\bar{X}$ | Total SD | Sequential Test of Educational Progress* Math $\bar{X}$ | Math SD | Science $\bar{X}$ | Science SD | Soc. St. $\bar{X}$ | Soc. St. SD | Read. $\bar{X}$ | Read. SD | Writ. $\bar{X}$ | Writ. SD | List. $\bar{X}$ | List. SD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1965-66 | 274.7 | 13.0 | 294.3 | 14.7 | 283.7 | 11.3 | 275.4 | 14.0 | 281.9 | 11.1 | 273.9 | 12.4 | 289.0 | 14.9 | 282.4 | 16.7 | 290.4 | 12.7 |
| 1966-67 | 275.1 | 13.6 | 295.2 | 14.2 | 284.3 | 11.3 | 275.3 | 13.2 | 279.7 | 11.6 | 270.6 | 12.7 | 285.1 | 17.2 | 280.3 | 16.0 | 288.1 | 13.8 |
| 1967-68 | 276.1 | 12.1 | 292.0 | 13.5 | 283.7 | 10.6 | 271.2 | 13.0 | 280.4 | 9.4 | 272.2 | 9.9 | 287.4 | 14.3 | 280.1 | 14.8 | | |
| 1968-69 | 273.2 | 14.4 | 286.8 | 17.5 | 280.2 | 13.2 | 271.0 | 14.5 | 277.8 | 11.2 | 270.9 | 13.8 | 291.4 | 21.3 | 275.5 | 18.0 | | |
| 1969-70 | 274.7 | 13.9 | 288.3 | 16.4 | 281.5 | 12.2 | 269.7 | 16.5 | 278.4 | 12.5 | 269.5 | 13.7 | 284.2 | 19.4 | 275.5 | 17.3 | 288.0 | 13.7 |

*Raw Scores

TABLE XXVII

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 9 PUPILS ON THE SCAT AND STEP TESTS: 1965-70, HAMPSHIRE COUNTY

| Academic Year | School College Aptitude Test* Verbal $\bar{X}$ | Verbal SD | Quantitative $\bar{X}$ | Quantitative SD | Total $\bar{X}$ | Total SD | Math $\bar{X}$ | Math SD | Science $\bar{X}$ | Science SD | Soc. St. $\bar{X}$ | Soc. St. SD | Reading $\bar{X}$ | Reading SD | Writing $\bar{X}$ | Writing SD | Listening $\bar{X}$ | Listening SD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1965-66 | 264.4 | 15.0 | 285.1 | 16.2 | 275.0 | 12.9 | 262.8 | 15.0 | 270.6 | 13.6 | 263.9 | 15.8 | 275.3 | 17.6 | 269.3 | 16.4 | | |
| 1966-67 | 265.0 | 13.9 | 283.9 | 15.7 | 274.9 | 12.0 | 262.0 | 14.9 | 270.0 | 13.0 | 262.0 | 14.8 | 272.0 | 17.5 | 268.3 | 18.0 | 281.0 | 15.7 |
| 1967-68 | 264.0 | 14.9 | 279.0 | 17.5 | 273.0 | 13.6 | 260.0 | 16.8 | 271.0 | 12.3 | 263.0 | 16.4 | 272.0 | 17.9 | 267.0 | 18.0 | 280.0 | 16.1 |
| 1968-69 | 262.9 | 14.1 | 277.6 | 14.2 | 271.4 | 11.6 | 259.4 | 13.5 | 269.6 | 11.9 | 259.4 | 13.3 | 269.7 | 17.1 | 263.5 | 16.7 | 277.9 | 16.3 |
| 1969-70 | 265.1 | 13.3 | 282.9 | 15.0 | 274.6 | 11.5 | 260.0 | 15.3 | 270.7 | 12.5 | 260.7 | 14.0 | 273.0 | 17.6 | 265.7 | 16.8 | 277.6 | 15.1 |

TABLE XXVIII

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 11 PUPILS ON THE SCAT AND STEP TESTS: 1965-70, HAMPSHIRE COUNTY

| Academic Year | School College Aptitude Test* Verbal $\bar{X}$ | Verbal SD | Quantitative $\bar{X}$ | Quantitative SD | Total $\bar{X}$ | Total SD | Sequential Test of Educational Progress* Math $\bar{X}$ | Math SD | Science $\bar{X}$ | Science SD | Soc. St. $\bar{X}$ | Soc. St. SD | Read. $\bar{X}$ | Read. SD | Writ. $\bar{X}$ | Writ. SD | List. $\bar{X}$ | List. SD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1965-66 | 274.6 | 13.3 | 292.4 | 14.1 | 282.9 | 11.3 | 274.2 | 10.5 | 280.3 | 10.6 | 273.5 | 12.7 | 289.0 | 16.8 | 284.1 | 14.8 | 287.4 | 12.1 |
| 1966-67 | 272.0 | 14.2 | 288.0 | 17.3 | 279.0 | 13.3 | 271.0 | 15.6 | 277.0 | 11.6 | 269.0 | 12.0 | 283.0 | 17.3 | 282.0 | 12.2 | 283.0 | 13.2 |
| 1967-68 | 275.6 | 13.0 | 290.5 | 12.8 | 282.9 | 11.2 | 273.7 | 12.0 | 279.4 | 10.1 | 274.0 | 10.9 | 288.9 | 13.0 | 283.8 | 13.1 | | |
| 1968-69 | 275.9 | 14.6 | 288.4 | 17.3 | 282.1 | 13.5 | 275.0 | 12.3 | 279.7 | 12.5 | 273.9 | 12.7 | 287.7 | 17.9 | 284.0 | 17.8 | | |
| 1969-70 | 273.9 | 14.5 | 282.9 | 17.9 | 278.9 | 13.9 | 269.9 | 15.3 | 276.4 | 11.4 | 270.1 | 12.7 | 283.9 | 18.7 | | | 281.5 | 13.7 |

*Raw Scores

TABLE XXIX

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 9 PUPILS ON THE SCAT AND STEP TESTS: 1965-70, HARDY COUNTY

| Academic Year | School College Aptitude Test* Verbal | | Quantitative | | Total | | Sequential Test of Educational Progress* Math | | Science | | Soc. St. | | Read. | | Writ. | | List. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | X̄ | SD | X̄ | SD | X̄ | SD | X̄ | SD | X̄ | SD | X̄ | SD | X̄ | SD | X̄ | SD | X̄ | SD |
| 1965-66 | 267.9 | 14.3 | 288.0 | 14.0 | 277.9 | 11.0 | 266.9 | 11.7 | 273.7 | 10.9 | 266.1 | 13.1 | 276.5 | 15.7 | 272.9 | 13.7 | 281.2 | 13.5 |
| 1966-67 | 270.1 | 14.1 | 288.4 | 13.7 | 279.1 | 10.9 | 266.2 | 14.0 | 274.4 | 12.8 | 266.5 | 13.9 | 277.3 | 18.0 | 271.4 | 17.2 | 284.5 | 14.0 |
| 1967-68 | 268.4 | 13.4 | 284.9 | 15.0 | 277.0 | 11.5 | 264.0 | 13.6 | 272.4 | 12.2 | 265.9 | 13.1 | 276.3 | 16.3 | 269.1 | 17.3 | 283.5 | 14.1 |
| 1968-69 | 265.5 | 14.1 | 283.4 | 16.5 | 275.1 | 12.1 | 259.7 | 14.8 | 268.8 | 12.9 | 261.9 | 14.0 | 272.7 | 18.0 | 263.7 | 17.7 | 276.5 | 13.9 |
| 1969-70 | 268.4 | 13.1 | 285.3 | 15.0 | 277.1 | 11.1 | 262.8 | 13.5 | 270.7 | 13.3 | 262.8 | 13.5 | 274.1 | 16.6 | 269.0 | 15.9 | 279.8 | 13.0 |

TABLE XXX

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 11 PUPILS ON THE SCAT AND STEP TESTS: 1965-70, HARDY COUNTY

| Academic Year | School College Aptitude Test* Verbal | | Quantitative | | Total | | Sequential Test of Educational Progress* Math | | Science | | Soc. St. | | Read. | | Writ. | | List. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | X̄ | SD | X̄ | SD | X̄ | SD | X̄ | SD | X̄ | SD | X̄ | SD | X̄ | SD | X̄ | SD | X̄ | SD |
| 1965-66 | 277.3 | 13.4 | 295.6 | 15.4 | 285.7 | 11.8 | 276.8 | 13.7 | 279.7 | 10.4 | 274.6 | 12.1 | 288.6 | 17.4 | 281.8 | 16.7 | 289.6 | 12.2 |
| 1966-67 | 278.0 | 13.2 | 293.5 | 14.8 | 285.3 | 10.5 | 274.7 | 14.2 | 280.3 | 10.7 | 273.0 | 12.7 | 288.8 | 15.0 | 280.9 | 14.7 | 289.2 | 11.2 |
| 1967-68 | 277.4 | 11.6 | 290.2 | 10.8 | 283.8 | 9.0 | 275.5 | 10.2 | 279.7 | 8.2 | 274.1 | 11.0 | 289.9 | 15.8 | 283.1 | 12.4 | 288.4 | 11.0 |
| 1968-69 | 277.4 | 14.8 | 290.9 | 15.7 | 283.9 | 12.6 | 273.9 | 14.7 | 281.9 | 10.5 | 273.5 | 13.4 | 290.9 | 16.8 | 283.3 | 16.9 | 289.6 | 12.4 |
| 1969-70 | 276.0 | 14.6 | 290.4 | 17.4 | 283.0 | 13.2 | 271.5 | 16.6 | 279.3 | 12.3 | 272.3 | 14.0 | 288.1 | 18.0 | 281.5 | 17.1 | 288.3 | 13.9 |

*Raw Scores

TABLE XXXI

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 9
PUPILS ON THE SCAT AND STEP TESTS: 1965-70, JEFFERSON COUNTY

| Academic Year | School College Aptitude Test* Verbal | | Quantitative | | Total | | Sequential Test of Educational Progress* Math | | Science | | Soc. St. | | Read. | | Writ. | | List. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD |
| 1965-66 | 269.4 | 13.8 | 291.9 | 14.7 | 280.1 | 11.5 | 265.9 | 13.1 | 273.4 | 13.5 | 265.7 | 14.3 | 279.0 | 15.2 | 272.7 | 15.2 | 282.7 | 15.5 |
| 1966-67 | 268.9 | 12.6 | 288.3 | 14.4 | 278.5 | 10.8 | 264.9 | 12.7 | 269.6 | 12.5 | 265.4 | 14.7 | 275.7 | 16.4 | 271.6 | 15.4 | 282.2 | 15.0 |
| 1967-68 | 268.4 | 13.9 | 288.2 | 14.3 | 278.2 | 11.3 | 262.8 | 13.9 | 269.5 | 12.9 | 264.0 | 14.4 | 273.2 | 18.0 | 269.3 | 16.8 | 282.8 | 17.1 |
| 1968-69 | 268.1 | 14.8 | 286.4 | 15.4 | 277.4 | 12.2 | 262.7 | 13.7 | 270.7 | 13.4 | 265.6 | 16.6 | 277.0 | 16.7 | 271.4 | 17.1 | | |
| 1969-70 | | | | | | | | | | | | | | | | | | |

TABLE XXXII

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 11
PUPILS ON THE SCAT AND STEP TESTS: 1965-70, JEFFERSON COUNTY

| Academic Year | School College Aptitude Test* Verbal | | Quantitative | | Total | | Sequential Test of Educational Progress* Math | | Science | | Soc. St. | | Read. | | Writ. | | List. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD |
| 1965-66 | 278.8 | 14.9 | 296.7 | 17.0 | 287.1 | 13.7 | 275.1 | 15.3 | 282.6 | 12.9 | 276.0 | 14.2 | 291.8 | 16.9 | 286.3 | 16.5 | 293.3 | 17.1 |
| 1966-67 | 276.9 | 13.2 | 294.7 | 16.1 | 285.1 | 12.2 | 273.9 | 14.8 | 278.5 | 11.4 | 273.7 | 13.2 | 288.5 | 16.4 | 283.2 | 16.2 | 291.1 | 14.9 |
| 1967-68 | 276.7 | 11.1 | 294.4 | 12.9 | 284.8 | 9.8 | 272.6 | 11.7 | 280.0 | 8.0 | 272.9 | 10.9 | 286.2 | 13.5 | 279.8 | 14.1 | 286.5 | 11.1 |
| 1968-69 | 276.9 | 12.7 | 291.4 | 14.2 | 283.9 | 11.1 | 273.5 | 13.7 | 280.2 | 10.4 | 273.9 | 12.1 | 290.5 | 15.7 | 283.4 | 16.8 | | |
| 1969-70 | | | | | | | | | | | | | | | | | | |

*Raw Scores

TABLE XXXIII

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 9 PUPILS ON THE SCAT AND STEP TESTS: 1965-70, MINERAL COUNTY

| Academic Year | School College Aptitude Test* Verbal $\bar{X}$ | SD | Quantitative $\bar{X}$ | SD | Total $\bar{X}$ | SD | Sequential Test of Educational Progress* Math $\bar{X}$ | SD | Science $\bar{X}$ | SD | Soc. St. $\bar{X}$ | SD | Read. $\bar{X}$ | SD | Writ. $\bar{X}$ | SD | List. $\bar{X}$ | SD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1965-66 | 267.0 | 14.6 | 287.0 | 16.8 | 277.1 | 13.0 | 264.2 | 14.2 | 270.6 | 12.4 | 265.5 | 14.3 | 276.0 | 16.7 | 271.4 | 16.1 | 282.1 | 15.1 |
| 1966-67 | | | | | | | | | | | | | | | | | | |
| 1967-68 | 268.0 | 14.7 | 285.5 | 17.2 | 277.1 | 13.0 | 263.2 | 15.2 | 271.0 | 13.3 | 264.7 | 15.3 | 276.0 | 17.9 | 270.1 | 17.2 | 282.2 | 16.6 |
| 1968-69 | 265.3 | 13.9 | 283.1 | 15.9 | 274.6 | 12.1 | 260.6 | 14.3 | 268.3 | 13.0 | 261.4 | 14.1 | 271.1 | 18.6 | 264.1 | 16.8 | | |
| 1969-70 | 267.0 | 15.3 | 284.1 | 17.0 | 276.0 | 13.1 | 262.6 | 15.1 | 270.2 | 13.5 | 262.9 | 15.4 | 272.6 | 18.8 | 265.6 | 18.8 | 278.1 | 17.6 |

TABLE XXXIV

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 11 PUPILS ON THE SCAT AND STEP TESTS: 1965-70, MINERAL COUNTY

| Academic Year | School College Aptitude Test* Verbal $\bar{X}$ | SD | Quantitative $\bar{X}$ | SD | Total $\bar{X}$ | SD | Sequential Test of Educational Progress* Math $\bar{X}$ | SD | Science $\bar{X}$ | SD | Soc. St. $\bar{X}$ | SD | Read. $\bar{X}$ | SD | Writ. $\bar{X}$ | SD | List. $\bar{X}$ | SD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1965-66 | 276.2 | 14.3 | 291.1 | 17.7 | 283.3 | 13.8 | 274.2 | 15.2 | 278.9 | 12.7 | 274.3 | 13.2 | 288.0 | 19.0 | 283.8 | 17.4 | 288.8 | 14.6 |
| 1966-67 | | | | | | | | | | | | | | | | | | |
| 1967-68 | 274.1 | 11.8 | 287.7 | 15.2 | 280.9 | 11.3 | 270.9 | 12.5 | 278.1 | 9.4 | 272.7 | 10.6 | 287.6 | 13.4 | 280.0 | 13.6 | | |
| 1968-69 | 274.4 | 13.4 | 288.3 | 16.9 | 281.3 | 12.5 | 272.1 | 15.2 | 278.1 | 11.0 | 272.0 | 12.4 | 287.8 | 17.0 | 280.9 | 16.6 | 287.4 | 14.9 |
| 1969-70 | 274.7 | 15.5 | 286.5 | 19.5 | 280.7 | 15.0 | 270.7 | 17.0 | 277.2 | 12.3 | 271.9 | 13.8 | 286.5 | 18.3 | 280.3 | 18.3 | 287.1 | 15.8 |

*Raw Scores

TABLE XXXV

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 9 PUPILS ON THE SCAT AND STEP TESTS: 1965-70, MORGAN COUNTY

| Academic Year | School College Aptitude Test* Verbal $\bar{X}$ | Verbal SD | Quantitative $\bar{X}$ | Quantitative SD | Total $\bar{X}$ | Total SD | Sequential Test of Educational Progress* Math $\bar{X}$ | Math SD | Science $\bar{X}$ | Science SD | Soc. St. $\bar{X}$ | Soc. St. SD | Read. $\bar{X}$ | Read. SD | Writ. $\bar{X}$ | Writ. SD | List. $\bar{X}$ | List. SD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1965-66 | 267.7 | 15.3 | 287.9 | 16.1 | 277.9 | 13.3 | 264.6 | 14.5 | 270.5 | 12.8 | 263.0 | 14.8 | 273.8 | 16.0 | | | 278.3 | 15.8 |
| 1966-67 | | | | | | | | | | | | | | | | | | |
| 1967-68 | | | | | | | | | | | | | | | | | 287.0 | 16.1 |
| 1968-69 | 263.7 | 14.0 | 278.0 | 15.2 | 271.9 | 12.0 | 255.5 | 16.4 | 267.6 | 11.2 | 260.0 | 14.0 | 264.1 | 19.5 | 258.9 | 17.3 | | |
| 1969-70 | 286.6 | 13.0 | 283.1 | 13.1 | 276.5 | 10.9 | 262.2 | 13.4 | 271.2 | 13.9 | 263.1 | 15.2 | 273.1 | 17.1 | 267.6 | 18.0 | 277.5 | 14.9 |

TABLE XXXVI

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 11 PUPILS ON THE SCAT AND STEP TESTS: 1965-70, MORGAN COUNTY

| Academic Year | School College Aptitude Test* Verbal $\bar{X}$ | Verbal SD | Quantitative $\bar{X}$ | Quantitative SD | Total $\bar{X}$ | Total SD | Sequential Test of Educational Progress* Math $\bar{X}$ | Math SD | Science $\bar{X}$ | Science SD | Soc. St. $\bar{X}$ | Soc. St. SD | Read. $\bar{X}$ | Read. SD | Writ. $\bar{X}$ | Writ. SD | List. $\bar{X}$ | List. SD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1965-66 | 277.9 | 11.9 | 295.0 | 15.8 | 285.6 | 11.3 | 277.3 | 14.6 | 282.2 | 12.3 | 274.4 | 12.8 | 289.6 | 14.5 | 285.3 | 15.2 | 288.0 | 11.1 |
| 1966-67 | | | | | | | | | | | | | | | | | | |
| 1967-68 | 275.6 | 13.4 | 293.8 | 14.8 | 284.2 | 12.1 | 274.3 | 11.4 | 280.4 | 10.0 | 271.6 | 11.5 | 280.3 | 16.0 | 278.6 | 15.3 | | |
| 1968-69 | 276.1 | 14.3 | 288.4 | 16.8 | 282.4 | 12.9 | 270.9 | 15.7 | 280.6 | 11.7 | 272.7 | 12.5 | 282.4 | 19.6 | 273.7 | 18.4 | | |
| 1969-70 | 272.2 | 15.2 | 287.9 | 17.4 | 282.4 | 14.5 | 272.6 | 15.6 | 279.8 | 14.2 | 272.4 | 14.5 | 288.0 | 19.0 | 279.6 | 20.0 | 284.4 | 16.2 |

*Raw Scores

TABLE XXXVII

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 9 PUPILS ON THE SCAT AND STEP TESTS: 1965-70, PENDLETON COUNTY

| Academic Year | School College Aptitude Test* Verbal $\bar{X}$ | Verbal SD | Quantitative $\bar{X}$ | Quantitative SD | Total $\bar{X}$ | Total SD | Sequential Test of Educational Progress* Math $\bar{X}$ | Math SD | Science $\bar{X}$ | Science SD | Soc. St. $\bar{X}$ | Soc. St. SD | Read. $\bar{X}$ | Read. SD | Writ. $\bar{X}$ | Writ. SD | List. $\bar{X}$ | List. SD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1965-66 | 264.5 | 12.3 | 285.1 | 16.5 | 275.0 | 11.3 | 261.9 | 14.3 | 269.6 | 10.5 | 262.1 | 13.1 | 273.0 | 15.8 | 269.1 | 14.9 | 279.3 | 14.2 |
| 1966-67 | 266.9 | 14.2 | 288.6 | 16.8 | 277.7 | 12.3 | 264.5 | 13.2 | 271.3 | 10.8 | 263.0 | 13.0 | 277.8 | 17.1 | 269.9 | 17.0 | 282.3 | |
| 1967-68 | 266.5 | 12.5 | 287.9 | 16.0 | 277.0 | 11.3 | 263.1 | 12.7 | 268.5 | 11.0 | 259.7 | 12.5 | 276.4 | 15.0 | 267.8 | 15.4 | 280.8 | 13.7 |
| 1968-69 | 264.5 | 16.2 | 284.8 | 20.0 | 274.9 | 15.2 | 260.1 | 16.8 | 268.7 | 11.9 | 262.3 | 16.1 | 272.2 | 18.6 | 265.6 | 18.1 | 275.7 | 16.4 |
| 1969-70 | 268.0 | 13.8 | 286.1 | 17.8 | 277.1 | 12.9 | 262.6 | 14.6 | 271.6 | 12.3 | 262.7 | 14.0 | 275.2 | 16.3 | 268.8 | 15.0 | 279.3 | 13.8 |



TABLE XXXVIII

SUMMARY OF MEANS AND STANDARD DEVIATIONS ACHIEVED BY GRADE 11 PUPILS ON THE SCAT AND STEP TESTS: 1965-70, PENDLETON COUNTY

| Academic Year | School College Aptitude Test* Verbal $\bar{X}$ | Verbal SD | Quantitative $\bar{X}$ | Quantitative SD | Total $\bar{X}$ | Total SD | Sequential Test of Educational Progress* Math $\bar{X}$ | Math SD | Science $\bar{X}$ | Science SD | Soc. St. $\bar{X}$ | Soc. St. SD | Read. $\bar{X}$ | Read. SD | Writ. $\bar{X}$ | Writ. SD | List. $\bar{X}$ | List. SD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1965-66 | 273.1 | 14.4 | 289.1 | 18.2 | 280.8 | 13.7 | 271.3 | 17.1 | 277.9 | 9.8 | 271.4 | 12.3 | 284.5 | 16.7 | 280.2 | 15.4 | 285.5 | 12.9 |
| 1966-67 | 271.6 | 13.0 | 285.6 | 18.0 | 278.5 | 13.1 | 270.3 | 14.7 | 278.4 | 10.9 | 269.5 | 12.1 | 285.9 | 15.6 | 278.7 | 14.7 | 285.7 | 13.3 |
| 1967-68 | 272.2 | 9.6 | 287.7 | 15.0 | 279.6 | 9.9 | 271.6 | 11.7 | 279.6 | 7.5 | 267.3 | 7.6 | 283.5 | 10.8 | 279.4 | 11.8 | | |
| 1968-69 | 274.2 | 12.3 | 290.9 | 18.1 | 282.0 | 12.2 | 272.8 | 15.5 | 279.9 | 11.6 | 274.7 | 12.8 | 287.1 | 16.7 | 280.7 | 16.4 | 287.0 | 12.9 |
| 1969-70 | 275.2 | 11.8 | 291.8 | 17.2 | 282.9 | 11.9 | 274.2 | 13.7 | 280.4 | 11.6 | 272.9 | 13.2 | 287.9 | 15.7 | 282.6 | 15.4 | 287.1 | 11.1 |

*Raw Scores

all three scores--verbal, quantitative, and total--of the SCAT.

These results appear dramatic and require immediate attention by the decision-makers in the schools in Region II. The strong negative trends found in the results of the administration of SCAT to ninth and eleventh grade pupils may be related to the socio-economic backgrounds of the students and the use of paper and pencil tests.

There does, however, appear to be a more rational explanation. The reader should recall that the holding power of the schools in Region II has increased. It can logically be hypothesized that the increase in holding power was due to the reducation in the number of drop-outs. Research has indicated that, generally, the drop-out performs at a lower level on paper and pencil tests than does the high school graduate. Therefore, it would appear logical to assume that the negative trend of pupil performance on the SCAT would be expected.

Sequential Test of Educational Progress

The achieved mean scores of the ninth and eleventh grade pupils in Region II on the STEP are presented in Tables XXIII through XXXVIII. At both grade levels, the STEP was composed of six sub-tests; they were: Mathematics, Science, Social Studies, Reading, Writing, and Listening.

Grade Nine. During the five academic year period under study, the ninth grade pupils in Region II showed a slight to strong negative trend in their performance on the mathematics, social studies, reading, and writing sub-tests. Their performance appeared to be unchanged in the science and listening sub-tests. There were no discernable positive trends.

Grade Eleven. During the five academic year period under study, the eleventh grade pupils in Region II showed a slight to strong negative trend in their performance on the mathematics, science, social studies, and reading sub-tests. Their performance appeared to be unchanged on the writing and listening sub-tests. There were no discernable positive trends.

Of the twelve sub-tests administered to the ninth and eleventh grade pupils, eight negative trends were identified, four instances of unchanged behavior and no positive trends were identified for the pupils performance on the STEP during the five academic year period under study.

It should be recalled that the SCAT is a predictive instrument and that its predictive ability is highly correlated to pupil performance on the STEP. Thus, it was expected that since a negative trend was found in pupil performance on the SCAT a corresponding negative performance would be found in the results of the administration of the STEP.

The above explanation in no way should be used as evidence for not changing the learning experiences of the pupils in Region II. The reverse appears to be true; that is, the curriculum builders of Region II should be constantly aware of the characteristics of its pupils. Evidence presented relating to the holding power and the performance of ninth and eleventh grade pupils on the SCAT provides a strong basis for curricular change. The curriculum decision-makers must constantly monitor the total system in order to adjust the schools to its client group--pupils. Although many other factors are involved in the results of the SCAT and STEP, evidence is present to support the thesis that

curricular changes appropriate to identified pupil needs should be implemented in all of the schools of Region II.

Item Response Analysis

Presented in Appendix A are Tables XXXIX through LIX showing item response analysis by test, sub-test, grade, county and Region. Item response analysis was defined for this Study as the per cent correct responses of total responses retrieved for each test item in each sub-test of the State-County Testing Program.

Item response analysis was not performed for grade 3 because these data were not available. In addition, item response analysis was not provided for Jefferson County; the item response analysis was performed for the data retrieved for the academic year 1969-70, and Jefferson County did not participate in the State-County Testing Program during that academic year. Regional data for this portion of the Study was calculated as a mean response for the seven remaining counties of Region II.

Social Studies. The per cent of correct responses to individual test items in the social studies sub-tests ranged from 14.0 per cent correct response to 95.0 per cent correct response for the pupils in grade 6; the mean per cent correct response per test item was 52.7. The per cent correct responses to individual test items in the social studies sub-test ranged from 19.2 per cent correct response to 86.3 per cent correct for the pupils in grade 9; the mean per cent correct response per test item was 54.2. The per cent of correct responses to individual test items in the social studies sub-test ranged from 16.6 per cent correct response to 77.7 per cent correct response for the

pupils in grade eleven; the mean per cent correct response per test item was 43.9

Arithmetic Application. The per cent of correct responses to individual test items and the arithmetic applications sub-test ranged from 8.0 per cent correct response to 75.0 per cent correct response for the pupils in grade six; the mean per cent correct response per test item was 48.6.

Arithmetic Computation. The per cent of correct responses to individual test items in the arithmetic computation sub-test ranged from 4.0 per cent correct response to 83.0 per cent correct response for the pupils in grade 6; the mean per cent correct response per test item was 48.1.

Arithmetic Concepts. The per cent of correct responses to individual test items in the arithmetic concepts sub-tests ranged from 17.0 per cent correct response to 78.0 per cent correct response for the pupils in grade six; the mean per cent correct response per test item was 46.2.

Mathematics. The per cent correct responses to individual test items in the mathematics sub-test ranged from 17.1 per cent correct response to 82.0 per cent correct response for the pupils in grade nine; the mean per cent correct response per test item was 48.9. The per cent of correct responses to individual test items in the mathematics sub-test ranged from 16.0 per cent correct response to 92.4 per cent correct response for the pupils in grade eleven; the mean per cent correct response per test item was 42.5.

Science. The per cent of correct responses to individual test items in the science sub-test ranged from 25.0 per cent correct response

to 84.0 per cent correct response for the pupils in grade six; the mean per cent correct response per test item was 54.3. The per cent of correct responses to individual test items in the science sub-test ranged from 20.4 per cent correct response to 86.7 per cent correct response for the pupils in grade nine; the mean per cent correct response per test item was 51.0. The per cent of correct responses to individual test items in the science sub-test ranged from 7.5 per cent correct response to 79.0 per cent correct response for the pupils in grade eleven; the mean per cent correct response per test item was 41.2.

Language. The per cent of correct responses to individual test items in the language sub-test ranged from 9.0 per cent correct response to 96.0 per cent correct response for the pupils in grade six; the mean per cent correct response per test item was 61.6.

Paragraph Meaning. The per cent of correct responses to individual test items in the paragraph meaning sub-test ranged from 17.0 per cent correct response to 86.0 per cent correct response for the pupils in grade six; the mean per cent correct response per test item was 54.1.

Spelling. The per cent of correct responses to individual test items in the spelling sub-test ranged from 18.0 per cent correct response to 93.0 per cent correct response for the pupils in grade six; the mean per cent correct response per test item was 55.4.

Word Meaning. The per cent of correct responses to individual test items in the word meaning sub-test ranged from 11.0 per cent correct response to 88.0 per cent correct response for the pupils in grade six; the mean per cent correct response per test item was 49.2.

Reading. The per cent of correct responses to individual test

items in the reading sub-test ranged from 30.1 per cent correct response to 88.0 per cent correct response for the pupils in grade nine; the mean per cent correct response per test item was 57.4. The per cent of correct responses to individual test items in the reading sub-test ranged from 27.4 per cent correct response to 89.9 per cent correct response for the pupils in grade eleven; the mean per cent correct response per test item was 58.2.

Writing. The per cent of correct responses to individual test items in the writing sub test ranged from 11.8 per cent correct response to 89.0 per cent correct response for the pupils in grade nine; the mean per cent correct response per test item was 51.7. The per cent of correct responses to individual test items in the writing sub-test ranged from 16.6 per cent correct response to 76.6 per cent correct response for the pupils in grade eleven; the mean per cent correct response per test item was 48.1.

Listening. The per cent of correct responses to individual test items in the listening sub-test ranged from 18.2 per cent correct response to 88.0 per cent correct response for the pupils in grade nine; the mean per cent correct response per test item was 60.9. The per cent of correct responses to individual test items in the listening sub-test ranged from 17.0 per cent correct response to 90.4 per cent correct response for the pupils in grade eleven; the mean per cent correct response per test item was 56.9.

One may assume that the mean per cent correct response per test item provides some indication of success the pupils in Region II achieved in the State-County Testing Program. That is, if the pupils in Region II achieved a higher mean per cent correct response per test item on sub-

test "X" than on sub-test "Y" it may be assumed the pupils were more proficient in curricular area "X" than in curricular area "Y", all other conditions being equal. Further, one may rank the sub-tests on the basis of the mean per cent correct response per test item achieved by pupils.

Using the above rationale, the success of sixth grade pupils in Region II on the sub-tests of the Stanford Achievement Test would provide the following rank ordering, enclosed within the parentheses is the mean per cent correct response per test item for the sub-test: Language (61.6), Spelling (55.4), Science (54.3), Paragraph Meaning (54.1), Social Studies (52.7), Word Meaning (49.2), Arithmetic Application (48.6), Arithmetic Computation (48.1), and Arithmetic Concepts (46.2).

The success of ninth grade pupils in Region II on the sub-tests of the STEP would provide the following rank order, enclosed within the parentheses is the mean per cent correct response per test item for the sub-tests: Listening (60.9), Reading (57.4), Social Studies (54.2), Writing (51.7), Science (51.0), and Mathematics (48.9).

The success of eleventh grade pupils in Region II on the sub-tests of the STEP would provide the following rank order, enclosed within the parentheses is the mean per cent correct response per test item for the sub-tests: Reading (58.2), Listening (56.9), Writing (48.1), Social Studies (43.9), Mathematics (42.5), and Science (41.2).

From the above analysis, one may generalize that the pupils in Region II enjoyed their greatest success, as measured by a standardized achievement test, in language arts; this was followed by social studies and science with mathematics in the final position. The reader is

cautioned that this is a generalization; the schools of Region II should make an in-depth study of the curriculum as related to the item response data presented in Appendix A.

In addition to the broad generalization presented above, the schools of Region II should analyze each test item in each sub-test in relation to the curricular objectives of a school, county, or the Region. In this way, the data may be used to determine the strengths and weaknesses of the curricula implemented within the Region and provide a sound basis for planning future pupil learning experiences.

## THE RELATIONSHIP OF CEP-EXPECTED MEASURABLE OUTCOMES AND THE STATE-COUNTY TESTING PROGRAM

In a previous section of this Report, it was stated that the West Virginia State Department of Education had developed a Comprehensive Educational Program in order to assist local school systems in planning and developing the total edcuational enterprise. Within this context, the development of the CEP generated Expected Measurable Outcomes in the curricular areas of arithmetic, language arts, science, and social studies. One objective of this Study was to determine if any relationships existed between the CEP-EMO's and the State-County Testing Program.

In order to determine if a relationship existed between the CEP-EMO's and the State-County Testing Program, a CEP-EMO, State-County Testing Program test item matrix for each grade level was developed. The results of this matrix are displayed in Tables LX through LXXII, Appendix B. At this point, the authors wish to emphasize that any relationship between CEP-EMO's and test items, or lack of relationship, is <u>not</u> to be construed as a value judgment of the quality of the EMO's or test items.

All interpretations of the data presented in Tables LX through LXXII must be considered under the following constructions:

1. The Comprehensive Educational Program and the State-County Testing Program have respective goals, purposes, and objectives, and a real difference exists between them.

2. It was not expected that all EMO's were designed to be measured only by a paper and pencil standardized test.

3. Due to the copyright dates of the standardized tests administered in the State-County Testing Program, it was recognized that all test items do not correlate with modern curriculum trends, i.e., new social studies, new mathematics, etc. However, many of the EMO's were related to modern curricular trends.

4. The actual association of a test item with a CEP-EMO was a professional judgment; it is recognized that considerable debate can be generated relative to the "exact" association of a test item with a specific EMO. It should be emphasized that when the EMO test item association appeared to be highly debatable, the association was not reported.

5. As stated by the State Department of Education, the CEP-EMO's are in a transitional or developmental stage; that is, it is expected that many of the CEP-EMO's will be refined and more accurately described in terms of "measurability" as the State Department of Education publishes later editions of the CEP.

Findings

Grade Three. The analysis of the 47 arithmetic EMO's and the Stanford Achievement Test, arithmetic, indicate that nine of the 47 EMO's were measured by one or more test items. The analysis of the 21 language arts EMO's and the Stanford Achievement Test, language arts sub-tests, indicate that six of the 21 EMO's were measured by one or more test items. The analysis of the 30 science EMO's and the Stanford Achievement Test, science, indicate that two of the 30 EMO's were measured by one or more test items. The analysis of the seven social studies EMO's and the Stanford Achievement Test, social studies, indicate that none of the seven EMO's were measured by one or more test items.

Grade Six. The analysis of the 47 arithmetic EMO's and the Stanford Achievement Test, arithmetic, indicate that eleven of the 47 EMO's were measured by one or more test items. The analysis of the 21

language arts EMO's and the Stanford Achievement Test, language arts sub-tests, indicate that five of the 21 EMO's were measured by one or more test items. The analysis of the 30 science EMO's and the Stanford Achievement Test, science, indicate that four of the 30 EMO;s were measured by one or more test items. The analysis of the seven social studies EMO's and the Stanford Achievement Test, social studies, indicate that one of the seven EMO's were measured by one or more test items.

Grade Nine. The analysis of the 47 arithmetic EMO's and the Stanford Achievement Test, arithmetic, indicate that nine of the 47 EMO's were measured by one or more test items. The analysis of the 21 language arts EMO's and the Stanford Achievement Test, language arts sub-tests, indicate that six of the 21 EMO's were measured by one or more test items. The analysis of the 58 science EMO's and the Stanford Achievement Test, science, indicate that four of the 57 EMO's were measured by one or more test items. The analysis of the three social studies EMO's and the Stanford Achievement Test, social studies, indicate that none of the three EMO's were measured by one or more test items.

Grade Eleven. The analysis of the 47 arithmetic EMO's and the Stanford Achievement Test, arithmetic, indicate that nine of the 47 EMO's were measured by one or more test items. The analysis of the 21 language arts EMO's and the Stanford Achievement Test, language arts sub-tests, indicate that six of the 21 EMO's were measured by one or more test items. The analysis of the 58 science EMO's and the Stanford Achievement Test, science, indicate that seven of the 58 EMO's

were measured by one or more test items. The analysis of the three social studies EMO's and the Stanford Achievement Test, social studies, indicate that none of the three EMO's were measured by one or more test items.

The results of this analysis indicate that approximately 20.2 per cent of the arithmetic CEP-EMO's for all grade levels were measured by the State-County Testing Program; 27.4 per cent of the language arts CEP-EMO's for all grade levels were measured by the State-County Testing Program; 8.8 per cent of the science CEP-EMO's for all grade levels were measured by the State-County Testing Program; 3.6 per cent of the social studies CEP-EMO's for all grade levels were measured by the State-County Testing Program. Overall, for grades 3, 6, 9 and 11, approximately 15.6 per cent of the total CEP-EMO's in arithmetic, language arts, science, and social studies were measured by the State-County Testing Program.

## Accountability

The above data generate debate relating to the minimal interfacing found between the CEP-EMO's and the State-County Testing Program. Excluding the costs incurred at the local level, which includes teacher, secretarial, administrative, and pupil time, West Virginia expends approximately $1,000,000 annually through the CEP and approximately $400,000 in the State-County Testing Program. It would appear reasonable that a higher degree of interfacing should exist between the two programs in order to: (1) improve assessment of the success of local school systems in achieving the objectives of CEP, (2) provide additional evidence for administering the State-County Testing Program, and (3) refine the process

for identifying major dysfunctions within West Virginia schools, the dysfunctions would be identified in a more objective manner.

The term "accountability" is beginning to have a greater and greater influence upon education. Basically, accountability requires that schools account for the factors of time, cost, and performance in operationalizing their programs.

West Virginia leads the Nation in that it has operationalized two components basic to any accountability model--CEP and the State-County Testing Program. The integration of the school budget with the CEP and the State-County Testing Program would provide the State an opportunity to develop and implement a comprehensive accountability model.

Further, a higher degree of interfacing would deter the possibility of policy debates being awarded to the most proficient debater; in the past, policy debates have too often shifted to a search for a winning argument as opposed to the correct solution. Decisions on trade-offs, priorities, and resource allocations would be backed up with data rather than intuition alone.

This Study has indicated that the CEP-EMO's and the results of the State-County Testing Program can be analyzed in order to determine the degree of success West Virginia schools are enjoying in meeting the State's educational goals. Further refinement of research methodology and analysis, CEP-EMO's, and State-County Testing Program design would precipitate greater crystallized and meaningful results. Discussions presented in following sections of this Report will provide further evidence to support these remarks.

## SUCCESS OF REGION II PUPILS IN ACHIEVING CEP-EMO's

This section of the Report discusses the success pupils in Region II had in achieving CEP-EMO's. In previous sections of this Report CEP-EMO's were associated with specific State-County Testing Program test items; also data have been provided which indicated the per cent correct responses achieved by pupils on specific State-County Testing Program test items. By associating the three variables--CEP-EMO's, test items, and per cent correct response per test item--one can determine the degree of success the pupils of Region II had in achieving CEP-EMO's in social studies, arithmetic, science, and language arts. For example, if 50.0 per cent of the pupils correctly responded to State-County Testing Program test items associated with a specific CEP-EMO, it may be inferred that the pupils in Region II achieved a 50.0 per cent level of success in achieving the CEP-EMO.

The CEP-EMO's do not define an associated degree of performance whereby one may determine when an EMO has been successfully achieved or not. However, normal standards for measurable objectives, generally, define success as when a pupil achieves a 90.0 per cent level of performance. However, the reader should recall that data were presented as group data and the mean per cent correct response associated with the CEP-EMO indicates the mean per cent of pupils who successfully achieved the EMO.

### Social Studies

Sixth Grade. At the sixth grade level only one of the seven CEP-EMO's in social studies was measured by the State-County Testing Program; this EMO was measured by 29 test items, see Table LXXIII. The regional

TABLE LXXIII

SUMMARY OF THE PERCENT CORRECT RESPONSES OF TOTAL RESPONSES PER GRADE LEVEL ON EXPECTED MEASURABLE OUTCOMES AS MEASURED BY THE STATE-COUNTY TEST OF PROGRAM ITEMS: SOCIAL STUDIES, GRADE 6. 1978-79 BY COUNTY AND REGION

| Expected Measurable Outcomes | Grade | # | Berkeley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|---|---|
| 11. Given illustrations and sentences which demonstrate precise examples of a geographic center, latitude, longitude, earth rotation and its effect on time, time zones, systems of land survey, urban street grids, southeast, southwest, northwest, azimuth and degrees of latitude and longitude, the student identifies each and states an example of each. | 6 | 29 | 55.7 | 54.2 | 56.2 | 55.6 | 55.1 | 56.0 | 47.3 | 56.2 |

*Number of test items associated Expected Measurable Outcomes.

mean correct response was 56.2. This indicates that approximately 56.2 per cent of the pupils in Region II correctly responded to the 29 test items.

Arithmetic

Sixth Grade. At the sixth grade level, eleven arithmetic CEP-EMO's were measured by the State-County Testing Program, see Table LXXIV. The degree of success for sixth grade pupils ranged from 41.6 per cent to 78.0 per cent; the mean success achieved by the sixth grade pupils on the eleven EMO's was 53.9 per cent.

Ninth Grade. At the ninth grade, nine arithmetic CEP-EMO's were measured by the State-County Testing Program, see Table LXXIV. The degree of success for ninth grade pupils ranged from 39.6 per cent to 63.4 per cent. The mean success achieved by the ninth grade pupils on the nine EMO's was 49.9 per cent.

Eleventh Grade. At the eleventh grade, nine arithmetic CEP-EMO's were measured by the State-County Testing Program, see Table LXXIV. The degree of success for eleventh grade pupils ranged from 25.2 per cent to 69.0 per cent. The mean success achieved by the eleventh grade pupils on the nine EMO's was 44.6 per cent.

Science

Grade Six. At the sixth grade level, four science CEP-EMO's were measured by the State-County Testing Program, see Table LXXV. The degree of success for sixth grade pupils ranged from 49.0 per cent to 58.0 per cent. The mean success achieved by the sixth grade pupils on the four EMO's was 54.0 per cent.

Grade Nine. At the ninth grade level, three science CEP-EMO's

TABLE LXXIV

SUMMARY OF THE PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER GRADE LEVEL ON EXPECTED MEASURABLE OUTCOMES AS MEASURED BY THE STATE-COUNTY TESTING PROGRAM ITEMS: ARITHMETIC, GRADES 6, 9, AND 11 1969-70 BY COUNTY AND REGION

| Expected Measurable Outcomes | Grade | N* | Berkeley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|---|---|
| 2. Recalls and uses facts, terms, and symbols related to a process. | 6 | 102 | 51.3 | 51.4 | 51.8 | 54.7 | 48.8 | 48.8 | 48.4 | 50.3 |
| | 9 | 24 | 53.2 | 46.9 | 48.2 | 51.6 | 52.8 | 52.2 | 52.0 | 51.5 |
| | 11 | 32 | 42.0 | 39.3 | 37.8 | 40.3 | 39.8 | 41.1 | 43.3 | 40.2 |
| 3. States an idea in mathemathical terminology. | 6 | 1 | 75 | 78 | 68 | 56 | 69 | 58 | 59 | 69 |
| | 9 | 4 | 53.9 | 47.0 | 52.2 | 54.3 | 54.3 | 51.8 | 54.6 | 50.0 |
| | 11 | 3 | 19.8 | 23.8 | 25.4 | 25.0 | 27.0 | 27.1 | 23.7 | 25.2 |
| 4. Distinguishes between the properties of numbers, sets, and geometric ideas and forms. | 6 | 1 | 78 | 81 | 79 | 78 | 73 | 83 | 79 | 78 |
| | 9 | 5 | 48.6 | 42.0 | 46.0 | 48.2 | 49.1 | 47.9 | 50.3 | 47.9 |
| | 11 | 1 | 42.4 | 41.0 | 42.3 | 40.5 | 37.5 | 37.4 | 45.8 | 40.2 |
| 5. Identifies and clarifies a concept to make logical implications. | 6 | 1 | 67 | 67 | 73 | 72 | 66 | 68 | 68 | 68 |
| | 11 | 4 | 37.5 | 36.3 | 42.5 | 41.6 | 40.3 | 43.2 | 43.2 | 40.6 |
| 6. Applies known facts to a new problem situation. | 6 | 5 | 41.4 | 44.8 | 40.0 | 44.8 | 40.8 | 42.8 | 39.6 | 41.6 |
| | 9 | 14 | 49.9 | 46.3 | 46.1 | 48.0 | 49.0 | 48.6 | 48.6 | 48.4 |
| | 11 | 1 | 68.6 | 77.6 | 65.6 | 73.0 | 64.4 | 77.2 | 66.4 | 69.0 |
| 7. Discovers generalizations by extending a concept. | 6 | 1 | 43 | 31 | 50 | 47 | 45 | 51 | 37 | 44 |
| 8. Justifies a generalization by stating logical reasons for each step of justification. | 11 | 1 | 53.4 | 58.7 | 50.9 | 62.2 | 51.9 | 52.8 | 66.3 | 55.4 |
| 15. Records memorized facts to find solutions. | 6 | 10 | 42.6 | 39.8 | 56.4 | 55.4 | 41.7 | 48.0 | 52.7 | 46.0 |
| 16. Uses a known fact related to the problem. | 6 | 27 | 52.1 | 51.8 | 53.2 | 56.2 | 49.5 | 49.9 | 50.2 | 51.4 |
| | 9 | 15 | 53.2 | 48.7 | 50.2 | 52.7 | 53.1 | 54.2 | 52.2 | 52.4 |
| | 11 | 23 | 39.1 | 39.7 | 41.1 | 43.2 | 42.6 | 43.9 | 43.7 | 42.0 |

TABLE LXXIV (CONT.)

| Expected Measurable Outcomes | Grade | N* | Berkeley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|---|---|
| 19. Estimates the result to aid finding the solution. | 6 | 2 | 47.0 | 51.5 | 48.0 | 46.0 | 45.0 | 49.0 | 50.5 | 47.5 |
| | 9 | 3 | 40.8 | 39.7 | 34.0 | 40.8 | 39.6 | 39.4 | 42.0 | 39.6 |
| 25. Identifies the question to be answered in the context of the problem situation. | 6 | 19 | 51.4 | 51.1 | 47.5 | 50.0 | 48.8 | 46.8 | 46.4 | 49.5 |
| | 9 | 37 | 50.0 | 45.0 | 46.3 | 48.9 | 49.6 | 47.7 | 48.8 | 48.6 |
| | 11 | 22 | 42.9 | 39.3 | 41.9 | 42.2 | 42.2 | 43.4 | 44.1 | 42.6 |
| 26. Selects relevant information needed to solve the problem. | 6 | 13 | 49.8 | 50.6 | 41.8 | 51.0 | 46.8 | 42.3 | 43.0 | 47.1 |
| | 9 | 28 | 48.2 | 43.2 | 43.9 | 49.4 | 47.9 | 46.4 | 46.8 | 46.9 |
| | 11 | 33 | 47.1 | 43.6 | 44.0 | 45.5 | 47.2 | 47.5 | 47.5 | 46.1 |
| 29. Generalizes the solution for similar situations. | 9 | 1 | 62.0 | 61.4 | 62.4 | 61.9 | 64.2 | 70.2 | 65.1 | 63.4 |

*Number of test items associated with the Expected Measurable Outcomes.

TABLE LXXV

SUMMARY OF THE PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER GRADE LEVEL ON EXPECTED MEASURABLE OUTCOMES AS MEASURED BY THE STATE-COUNTY TESTING PROGRAM ITEMS: ELEMENTARY SCIENCE, GRADE 6 1969-70 BY COUNTY AND REGION

| Expected Measurable Outcomes | Grade | N* | Berkeley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|---|---|
| 3. Makes a reasonable conclusion or reognizes trends in a set of data. | 6 | 58 | 54.6 | 57.3 | 53.4 | 52.1 | 54.9 | 56.1 | 47.3 | 54.3 |
| 30. Understands the conceptual model of the universe. | 6 | 1 | 55 | 59 | 57 | 48 | 62 | 65 | 58 | 58 |
| 31. Understands the relationship between an organism and its environment. | 6 | 4 | 52.3 | 53.8 | 55.8 | 58.3 | 53.3 | 52.8 | 44.5 | 54.8 |
| 32. Understands the broad conceptual schemes pertaining to conservation laws. | 6 | 1 | 45 | 52 | 49 | 53 | 51 | 50 | 44 | 49 |

*Number of test items associated with the Expected Measurable Outcomes.

TABLE LXXVI

SUMMARY OF THE PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER GRADE LEVEL ON EXPECTED MEASURABLE OUTCOMES AS MEASURED BY THE STATE-COUNTY TESTING PROGRAM ITEMS: SECONDARY SCIENCE, GRADES 9 AND 11 1969-70 BY COUNTY AND REGION

| Expected Measurable Outcomes | Grade | N | Berkeley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|---|---|
| 14. Identifies the necessary safeguards in an experimental or practical situation. | 11 | 1 | 67.5 | 58.1 | 57.4 | 70.3 | 59.2 | 66.7 | 73.8 | 63.3 |
| 15. Uses appropriate experimental procedures suitable to the solution of the problem and devises an experiment appropriate to the solution of the problem. | 11 | 1 | 34.2 | 23.9 | 30.2 | 32.4 | 32.5 | 41.5 | 32.7 | 29.5 |
| 20. Draws a generalization and a conclusion based on data and suggested mathematics formulas or verbal generalization to summarize the relationships shown in the data. | 9 | 22 | 56.7 | 52.0 | 53.2 | 45.6 | 52.9 | 55.1 | 56.6 | 54.2 |
| | 11 | 21 | 40.9 | 41.1 | 36.7 | 43.8 | 41.4 | 44.1 | 41.5 | 40.6 |
| 21. Devises an experiment to test a hypothesis about an unfamiliar situation. | 11 | 1 | 29.1 | 20.5 | 34.6 | 29.7 | 26.9 | 34.1 | 24.3 | 28.4 |
| 22. Recognizes that sufficient data is or is not available to support a conclusion. | 9 | 1 | 45.8 | 73.3 | 42.9 | 36.7 | 42.5 | 43.3 | 41.3 | 43.5 |
| | 11 | 2 | 27.4 | 28.2 | 24.1 | 24.3 | 25.2 | 25.2 | 28.0 | 25.9 |
| 27. Maintains an alert skepticism toward statements of authority in scientific discourse | 11 | 1 | 49.6 | 50.4 | 36.4 | 45.9 | 44.5 | 48.8 | 51.4 | 45.7 |
| 48. Selects a learned theory or principle that is consistent with given facts, observations, or data. | 9 | 9 | 61.9 | 54.6 | 57.8 | 46.9 | 58.0 | 51.4 | 64.8 | 58.8 |
| | 11 | 13 | 43.4 | 43.0 | 39.5 | 48.5 | 41.8 | 50.4 | 50.3 | 45.0 |

*Number of test items associated with the Expected Measurable Outcomes.

were measured by the State-County Testing Program, see Table LXXVI. The degree of success for ninth grade pupils ranged from 43.5 per cent to 58.8 per cent. The mean success achieved by the ninth grade pupils on the three EMO's was 52.2 per cent.

Grade Eleven. At the eleventh grade level, seven science CEP-EMO's were measured by the State-County Testing Program, see Table LXXVI. The degree of success for eleventh grade pupils ranged from 25.9 per cent to 63.3 per cent. The mean success achieved by the eleventh grade pupils on the seven EMO's was 39.8 per cent.

Language Arts

Grade Six. At the sixth grade level, five language arts CEP-EMO's were measured by the State-County Testing Program, see Table LXXVII. The degree of success for sixth grade pupils ranged from 52.1 per cent to 58.8 per cent. The mean success achieved by the sixth grade pupils on the five EMO's was 54.5 per cent.

Grade Nine. At the ninth grade level, six language arts CEP-EMO's were measured by the State-County Testing Program, see Table LXXVII. The degree of success of ninth grade pupils ranged from 41.4 per cent to 57.1 per cent. The mean success achieved by the ninth grade pupils on the six EMO's was 51.3 per cent.

Grade Eleven. At the eleventh grade level, six language arts CEP-EMO's were measured by the State-County Testing Program, see Table LXXVII. The degree of success of eleventh grade pupils ranged from 46.1 per cent to 55.5 per cent. The mean success achieved by the eleventh grade pupils on the six EMO's was 51.7 per cent.

During the academic year 1969-70, the pupils in Region II achieved

TABLE LXXVII

SUMMARY OF THE PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER GRADE LEVEL ON EXPECTED MEASURABLE OUTCOMES AS MEASURED BY THE STATE-COUNTY TESTING PROGRAM ITEMS: LANGUAGE ARTS, GRADES 6, 9, AND 11 1969-70 BY COUNTY AND REGION

| Expected Measurable Outcomes | Grade | N* | Berkeley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|---|---|
| 6. The learner analyzes the variability of language design and transforms sentences and paragraphs to convey ideas. | 6 | 92 | 69.5 | 61.3 | 59.5 | 58.8 | 57.2 | 60.9 | 56.8 | 58.8 |
| 9. The learner locates and notes pertinent literature to clarify, support and/or disprove his ideas. | 6 | 136 | 53.2 | 52.6 | 50.4 | 51.8 | 53.0 | 50.7 | 47.6 | 52.1 |
| | 9 | 44 | 56.4 | 51.2 | 53.2 | 45.0 | 53.4 | 55.6 | 54.1 | 54.2 |
| | 11 | 43 | 54.3 | 50.3 | 54.5 | 55.2 | 54.7 | 55.8 | 57.2 | 54.4 |
| 11. The learner discriminates types of information in mass media (television, radio, newspaper, magazine, books, motion pictures, plays and advertising) as to whether the information is fact, opinion or fiction. | 6 | 192 | 54.2 | 54.0 | 51.3 | 52.3 | 53.1 | 52.2 | 49.5 | 53.0 |
| | 9 | 58 | 43.0 | 40.8 | 40.6 | 42.0 | 40.7 | 42.4 | 41.3 | 41.4 |
| | 11 | 61 | 55.4 | 51.5 | 54.7 | 57.4 | 54.8 | 56.7 | 58.0 | 55.5 |
| 12. The learner selects and compares values found in historical literature with modern literature and reacts to the events of the time. | 9 | 12 | 59.9 | 53.1 | 58.6 | 54.4 | 56.5 | 57.3 | 55.6 | 57.1 |
| | 11 | 15 | 57.0 | 52.8 | 47.2 | 56.2 | 54.3 | 57.3 | 52.4 | 54.3 |
| 13. The learner's attitudes toward others are in part a reflection of his ability to select and synthesize concepts evolving from literature. | 6 | 192 | 54.2 | 54.0 | 51.3 | 52.8 | 53.1 | 52.2 | 49.5 | 53.0 |
| | 9 | 108 | 55.9 | 50.9 | 52.9 | 54.6 | 54.3 | 54.3 | 56.8 | 53.4 |
| | 11 | 108 | 54.3 | 52.5 | 52.5 | 53.8 | 54.0 | 54.4 | 54.9 | 53.4 |
| 15. The learner writes his ideas, views and opinions in a form and style acceptable to him and his readers. | 6 | 56 | 55.0 | 56.2 | 54.6 | 53.8 | 55.8 | 54.0 | 50.9 | 55.4 |
| | 9 | 26 | 54.9 | 51.1 | 52.6 | 55.1 | 53.0 | 55.1 | 56.1 | 53.6 |
| | 11 | 13 | 44.2 | 42.8 | 46.0 | 47.0 | 46.3 | 47.7 | 45.8 | 46.1 |
| 16. The learner writes ideas, views and opinions about situations, events or persons and can identify the most effective and appropriate form (narrative, descriptive, expository or argumentative) being used. | 9 | 44 | 49.5 | 44.6 | 47.5 | 48.0 | 46.7 | 49.3 | 49.6 | 47.9 |
| | 11 | 33 | 42.9 | 42.4 | 44.1 | 42.3 | 45.9 | 45.3 | 47.8 | 46.2 |

*Number of test items associated with the Expected Measurable Outcomes.

a mean success of 50.2 per cent in the Expected Measurable Outcomes for arithmetic, science, language arts, and social studies, as measured by associated State-County Testing Program test items. The interpretation of this data indicates that approximately 50.2 per cent of the pupils in Region II (grades six, nine, and eleven) achieved 100.0 per cent success in the CEP-EMO's associated with social studies, arithmetic, science, and language arts, as measured by State-County Testing Program test items. Also, the data indicate that approximately 49.8 per cent of the students failed to achieve 100.0 success in the measured CEP-EMO's.

A detailed examination of the above data indicates that the per cent of pupils in Region II achieving success in attaining the CEP-EMO's decreased at each successively higher level. In a previous section of this Report, see Tables VII through XXXVIII, it was indicated that the achievement of pupils, especially at the senior high school level, decreased during the five academic years under study. It is apparent that selective intervening actions must be taken by the curricular decision-makers in Region II in order to inhibit the two significant trends identified by this Study. The schools of Region II should undertake a concerted research and evaluation program relating to the system's inputs, control mechanism, feedback systems, and processor (curriculum).

Lay and professional reactions to the above may center on the thesis that it is not sound curricular policy to "teach for a test." Questions arising from the results of this Study cannot be "rationalized" with such a simplistic response. Test results, as utilized in this Study, should be interpreted as an essential feed-back element in the Region's

mission to provide the most relevant and appropriate curriculum for its pupils.

The Comprehensive Educational Program was developed by West Virginia's total professional community--representatives of the State Department, local education agencies and higher education. This development incurred the utilization of significant amounts of professional expertise, man-hours, and resources in order to develop logical and rational educational goals based on the needs of West Virginia. In the absence of a better formulated "Plan," the CEP should be considered as the basic or minimal control mechanism for directing the course of education in West Virginia. Local school systems have the responsibility to develop additional control mechanisms (local goals and objectives) to supplement and/or expand the State's minimum goals and objectives.

Although local scnool systems have minimum control of inputs as related to pupils, they have a large amount of control as related to such inputs as teachers, instructional modes, ancillary personnel, equipment, learning tools, etc. The Region's educational decision-makers need to determine the effectiveness of various inputs and their interactions in order to optimize the learning environment. For example, what is the "best" mix of teachers, teacher-aides, and pupils? Is learning enhanced when the traditional teaching model is changed from six teachers per 150 pupils to 3 teachers and 6 teacher-aides per 150 pupils?

More importantly, curricular decision-makers need to throughly assess the needs and characteristics of the pupils, prior to curriculum development. This Study was global in nature; however, enough specificity was provided to indicate that State-County Testing Program data, i.e.,

CEP-EMO, test item results, can and should be more fully recognized in curriculum building--from the individual classroom to the Region.

## A SELF-STUDY MODEL FOR REGION II SCHOOLS

A flow diagram of a planning decision-making process appropriate for a self-study model for Region II schools is presented in Figure 1. The model is flexible and may be adjusted to meet individual school building, county, regional, or State level self-studies.

The model can be used to continuously monitor the impact present or future learning experiences have upon the pupils of Region II. It is both a planning model and an evaluative model for the continuous development of schools in Region II. Basically, the model is a "loop" system, whereby the decision-makers are continuously receiving feedback upon the success of the system.

### Model Definition

After the basic philosophy, goals, and purposes of a school have been defined, the next logical step is to develop objectives, see Figure 1. The system then has to determine if the objectives are appropriate to the needs. Within the model, needs may be defined as those identified by the pupil, community, region, state, or nation. If it is determined that the objectives are not appropriate to the identified needs, the system must begin to search for new objectives, objectives appropriate to identified needs.

After it has been determined that the objectives are appropriate to the needs, the system begins to develop a curriculum. The system then begins to compare the curriculum with the objectives. If the system determines that the curriculum is not comparable to the objectives, the

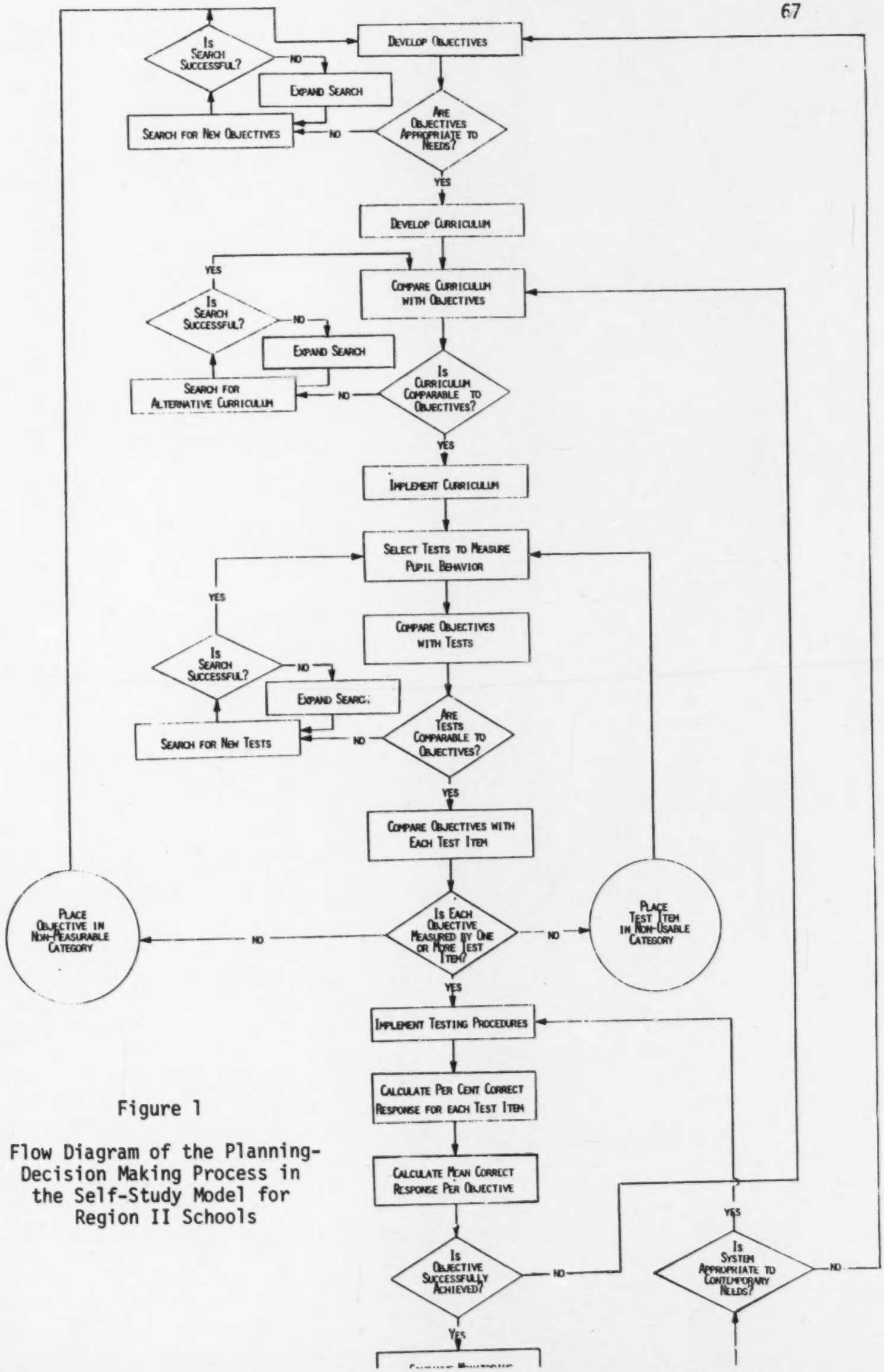


Figure 1

Flow Diagram of the Planning-Decision Making Process in the Self-Study Model for Region II Schools

system must search for an alternative curriculum. The system stays within this loop until the search is successful.'

After it has been determined that the curriculum is comparable to the objectives, the system begins to implement the curriculum. The next phase in the model indicates that the system must begin to select tests to measure pupil behavior. The system then begins to compare its objectives with the testing instruments. A decision must be reached in order to determine if the tests are comparable to the objectives. If the tests are not comparable, the system enters a search loop until it selects tests which measure pupil behavior in accord with the objectives of the system.

After the basic tests are selected, the system begins to compare the objectives with each test item. At this point, the system must address itself to the question "Is each objective measured by one or more test items?" If the question is answered in the negative, the system has two alternatives. Objectives may revert to a non-measurable category, non-measurable in terms of the selected tests, and the system proceeds through a review of the "measurability" of the objective. Secondly, the system may encounter a test item which is not associated with an objective. In this case, the test item is placed in a non-usable category and returned to the system for review.

After it has been determined that each objective is measured by one or more test items, the system implements its testing program. After the testing has been completed, the per cent correct response for each test item is calculated and the mean correct response per objective is calculated.

After this analysis, the system must determine if the objective has been successfully achieved. If the objective has not been successfully achieved, the system must again compare the curriculum with its objectives. If it has been determined that the objective has been successfully achieved, the system does not remain static. There is a continuous monitoring of the system in order to determine if the system is appropriate to contemporary needs.

If it has been determined that the system is functioning in a manner appropriate to contemporary needs, the system is permitted to continue to function. However, if it has been determined that the system is no longer appropriate to contemporary needs, the decision-makers must return to the original phase of the model--develop objectives.

The model is being offered to curricular specialists, supervisors, principals, coordinators, superintendents, etc., in Region II to assist them in determining the quality of their schools as related to the Comprehensive Educational Program and the State-County Testing Program. As previously indicated, this study was concerned with Regional trends. Necessarily, data were reported on individual counties within the Region;however, individual school data were not reported. It would appear appropriate that this Study should be replicated at the individual school building level. This would enable principals to determine the success of the individual schools, identify school strengths and weaknesses, and assist in formulating and implementing appropriate intervention actions.

In retrieving the data necessary to implement this Study, it became apparent that CEP guidelines and results of the State-County

Testing Program were not being utilized to their fullest extent. The authors recognize there were certain environmental constraints, i.e., resources, policies, facilities, etc., which tended to inhibit the optimization of the CEP and results of the State-County Testing Program at the local level. Also, each local school system had their own priorities, resource allocation determinations, and other factors which determine the extent to which available data is utilized.

However, one must recognize that the citizens of West Virginia have supported the Comprehensive Educational Program and the State-County Testing Program with their tax monies for a number of years. This support has included millions of dollars. And, unless the programs are curtailed, will require the expenditure of millions of tax dollars in future years. Thus, it is incumbent upon the professional educators of West Virginia--State, regional, and local--to retrieve the maximum benefit from the tax monies provided for education in West Virginia. It would appear that through a minimal effort, the schools of Region II could optimize the use of the results of the State-County Testing Program and provide more relevant pupil learning experiences by following the guidelines of the Comprehensive Educational Program.

The schools of Region II appear to be at a critical point in their developmental history. Evidence presented in this report indicates that pupil behavior in the State-County Testing Program has regressed both over time and during an individual group of pupils progression through grade levels.

This study also indicated that the educational enterprise in Region II requires the expenditure of large sums of money. Relating to

the financial investment and pupil behavior on standardized tests, the following questions require consideration:

1. Has the investment of puplic funds in Region II schools been sufficient or insufficient?

2. Are the schools of Region II implementing the most effective curriculum possible in terms of the resources available to the schools?

Answers to these questions lie in the concept of "incremental learning costs"--costs required to raise the learning level of a pupil one increment. That is, How much does it cost to raise the reading level of a pupil one month? How much does it cost to raise the pupil one grade level in a specific subject matter area? Due to the budgetary methods employed in the schools of West Virginia, these questions cannot be answered at the present time.

There is a great temptation for one to study trends in school finance and, subsequently, study the trends in pupil learning behavior and then an attempt is made to correlate finance and pupil learning behavior. However, one must recall that a correlation does not necessarily imply cause-and-effect relationships. Instead of correlational studies, the schools of Region II should begin to apply cost analysis and cost benefit budgetary techniques in order to determine the most effective and efficient curriculum and input mix necessary to meet the needs of pupils in Region II.

Such studies would determine if the investment of tax monies in Region II schools is adequate or inadequate. These studies, necessarily, would cause the Region's schools to thoroughly investigate all inputs, control factors (goals, purposes, objectives, etc.), processing

mechanisms, (curriculum, instructions models, etc.), and feedback systems (testing programs, testing instruments, etc.). The self-study model discussed in this section of the Report provides the foundation whereby the schools may initiate procedures for a continuous planning, implementing, evaluation program to monitor the effectiveness and efficiency of the curriculum.

The implementation of a program to determine the effectiveness and efficiency of school monies requires considerable amounts of resources and time; it will not occur over-night. The Curriculum Improvement Center occupies a strategic position for providing the leadership for such a program. However, the Curriculum Improvement Center cannot provide this leadership in isolation; it requires the combined efforts of both the lay and professional communities in each of the eight counties in the Region.

"How Good Are Our Schools?"

Through the data presented in this Report, it can be concluded that the schools of Region II are good. However, good is a relative term; good implies that a comparison has been made. It should be recalled that the schools of Region II were not compared to either each other, to other regions in the State, or to State or National norms.

A comparison was made. The outputs, "pupil behavior," was compared to a control mechanism "CEP." This comparison is, in reality, the most important comparison which could be made. The results of the Study indicate that the schools of Region II have made significant progress in meeting the objectives of the Comprehensive Educational Program.

The authorization of this Study by the schools of Region II provides unobtrusive evidence that the schools are good. The professional leadership of the Region II schools should be commended for authorizing this Study in an attempt to assess the quality of the schools; these actions indicate that the schools of the Region are searching for methods and means to improve the quality of education received by the children in Region II, from good to excellent or superior--society can have no higher goal.

# APPENDIX A

Item Response Analysis Showing Per Cent Correct Responses of Total Responses Per Test Item on the SAT, Grade 6, and the STEP, Grades 9 and 11

TABLE XXXIX

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSE PER TEST ITEM: STANFORD ACHIEVEMENT TEST, SOCIAL STUDIES, GRADE 6
1969-70 BY COUNTY AND REGION

| Test Item | County | | | | | | | Region |
|---|---|---|---|---|---|---|---|---|
| | Berkeley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | |
| 1 | 97 | 98 | 94 | 93 | 94 | 95 | 89 | 95 |
| 2 | 95 | 96 | 87 | 85 | 89 | 86 | 90 | 91 |
| 3 | 65 | 67 | 68 | 67 | 66 | 68 | 62 | 66 |
| 4 | 74 | 85 | 72 | 61 | 78 | 81 | 73 | 75 |
| 5 | 83 | 83 | 88 | 88 | 83 | 85 | 79 | 84 |
| 6 | 87 | 88 | 87 | 85 | 85 | 85 | 77 | 86 |
| 7 | 65 | 70 | 64 | 63 | 71 | 84 | 58 | 68 |
| 8 | 45 | 54 | 49 | 51 | 49 | 39 | 50 | 47 |
| 9 | 72 | 69 | 76 | 74 | 59 | 72 | 68 | 69 |
| 10 | 61 | 66 | 69 | 58 | 61 | 57 | 64 | 62 |
| 11 | 70 | 74 | 73 | 67 | 73 | 82 | 59 | 72 |
| 12 | 64 | 73 | 73 | 64 | 73 | 73 | 48 | 68 |
| 13 | 52 | 41 | 70 | 48 | 54 | 62 | 50 | 54 |
| 14 | 52 | 55 | 56 | 53 | 49 | 55 | 57 | 53 |
| 15 | 51 | 45 | 58 | 62 | 61 | 54 | 52 | 55 |
| 16 | 47 | 43 | 52 | 44 | 51 | 49 | 45 | 48 |
| 17 | 56 | 48 | 57 | 51 | 57 | 55 | 50 | 55 |
| 18 | 43 | 49 | 43 | 43 | 45 | 50 | 41 | 45 |
| 19 | 62 | 52 | 53 | 44 | 57 | 63 | 49 | 57 |
| 20 | 50 | 62 | 59 | 53 | 50 | 44 | 54 | 52 |

TABLE XXXIX (CONT.)

| Test Item | County | | | | | | | Region |
|---|---|---|---|---|---|---|---|---|
| | Berkeley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | |
| 21 | 50 | 54 | 45 | 44 | 54 | 47 | 54 | 50 |
| 22 | 58 | 70 | 49 | 51 | 61 | 71 | 41 | 58 |
| 23 | 45 | 58 | 53 | 52 | 57 | 45 | 58 | 51 |
| 24 | 45 | 57 | 51 | 49 | 62 | 57 | 51 | 52 |
| 25 | 52 | 60 | 57 | 51 | 57 | 57 | 53 | 55 |
| 26 | 46 | 50 | 50 | 49 | 42 | 50 | 37 | 46 |
| 27 | 39 | 40 | 40 | 37 | 40 | 37 | 30 | 38 |
| 28 | 68 | 34 | 44 | 39 | 70 | 54 | 46 | 58 |
| 29 | 40 | 36 | 38 | 47 | 40 | 51 | 38 | 41 |
| 30 | 39 | 33 | 52 | 43 | 37 | 55 | 33 | 41 |
| 31 | 45 | 46 | 32 | 36 | 41 | 46 | 31 | 42 |
| 32 | 39 | 43 | 51 | 39 | 38 | 43 | 41 | 41 |
| 33 | 40 | 36 | 43 | 36 | 37 | 39 | 28 | 38 |
| 34 | 39 | 53 | 49 | 60 | 52 | 45 | 51 | 47 |
| 35 | 43 | 53 | 40 | 36 | 35 | 44 | 32 | 41 |
| 36 | 28 | 22 | 25 | 26 | 29 | 22 | 22 | 26 |
| 37 | 32 | 23 | 32 | 33 | 32 | 29 | 28 | 31 |
| 38 | 30 | 31 | 26 | 29 | 31 | 27 | 33 | 30 |
| 39 | 32 | 41 | 36 | 35 | 34 | 28 | 30 | 33 |
| 40 | 26 | 26 | 24 | 36 | 33 | 29 | 30 | 29 |
| 41 | 29 | 41 | 32 | 26 | 31 | 25 | 25 | 30 |
| 42 | 25 | 33 | 25 | 28 | 24 | 23 | 17 | 25 |

TABLE XXXIX (CONT.)

| Test Item | County | | | | | | | Region |
|---|---|---|---|---|---|---|---|---|
| | Berkeley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | |
| 43 | 27 | 21 | 24 | 32 | 25 | 24 | 24 | 26 |
| 44 | 12 | 11 | 17 | 17 | 16 | 12 | 21 | 14 |
| 45 | 23 | 21 | 25 | 26 | 19 | 17 | 24 | 22 |
| 46 | 91 | 96 | 91 | 86 | 86 | 86 | 80 | 89 |
| 47 | 80 | 79 | 79 | 80 | 78 | 79 | 63 | 78 |
| 48 | 70 | 76 | 71 | 70 | 69 | 76 | 54 | 70 |
| 49 | 54 | 63 | 48 | 50 | 57 | 57 | 50 | 54 |
| 50 | 54 | 62 | 53 | 42 | 55 | 53 | 45 | 53 |
| 51 | 64 | 69 | 71 | 64 | 65 | 58 | 57 | 64 |
| 52 | 70 | 72 | 77 | 62 | 68 | 64 | 62 | 69 |
| 53 | 44 | 42 | 37 | 44 | 44 | 47 | 32 | 43 |
| 54 | 44 | 43 | 50 | 39 | 44 | 42 | 41 | 44 |
| 55 | 44 | 42 | 33 | 39 | 42 | 27 | 32 | 39 |
| 56 | 62 | 55 | 77 | 66 | 67 | 68 | 53 | 56 |
| 57 | 57 | 51 | 56 | 58 | 59 | 48 | 54 | 65 |
| 58 | 53 | 50 | 54 | 54 | 55 | 48 | 44 | 56 |
| 59 | 56 | 49 | 54 | 58 | 52 | 54 | 41 | 52 |
| 60 | 75 | 76 | 80 | 78 | 75 | 81 | 67 | 53 |
| 61 | 62 | 62 | 64 | 65 | 62 | 65 | 51 | 76 |
| 62 | 70 | 64 | 71 | 78 | 59 | 72 | 54 | 62 |
| 63 | 52 | 52 | 51 | 51 | 52 | 56 | 46 | 69 |
| 64 | 56 | 51 | 56 | 61 | 51 | 65 | 46 | 52 |

TABLE XXXIX (CONT.)

| Test Item | County | | | | | | | Region |
|---|---|---|---|---|---|---|---|---|
| | Berkeley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | |
| 65 | 58 | 47 | 51 | 56 | 58 | 64 | 47 | 55 |
| 66 | 60 | 54 | 54 | 61 | 57 | 58 | 45 | 56 |
| 67 | 59 | 62 | 57 | 64 | 57 | 64 | 52 | 57 |
| 68 | 57 | 52 | 58 | 64 | 58 | 57 | 45 | 59 |
| 69 | 36 | 29 | 36 | 31 | 37 | 28 | 29 | 57 |
| 70 | 46 | 45 | 52 | 47 | 40 | 54 | 45 | 40 |
| 71 | 38 | 42 | 46 | 33 | 43 | 47 | 50 | 46 |
| 72 | 38 | 36 | 40 | 43 | 42 | 45 | 34 | 42 |
| 73 | 37 | 30 | 36 | 40 | 32 | 39 | 33 | 40 |
| 74 | 28 | 22 | 28 | 27 | 23 | 21 | 21 | 35 |

TABLE XL

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSE PER TEST ITEM: SEQUENTIAL TEST OF EDUCATIONAL PROGRESS, SOCIAL STUDIES, GRADE 9
1969-70 BY COUNTY AND REGION

| Test Item | Berkeley | Grant | Hampshire | Hardy | COUNTY Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|
| | | | | | PART I | | | |
| 1 | 65.1 | 63.3 | 51.8 | 49.6 | 66.1 | 65.2 | 69.8 | 63.9 |
| 2 | 59.8 | 50.0 | 52.8 | 51.8 | 55.1 | 58.5 | 60.0 | 56.2 |
| 3 | 68.0 | 63.3 | 58.5 | 48.6 | 69.5 | 62.0 | 56.0 | 64.0 |
| 4 | 42.3 | 33.5 | 31.1 | 28.6 | 41.4 | 33.1 | 31.2 | 37.4 |
| 5 | 81.2 | 79.7 | 72.2 | 62.6 | 80.1 | 83.7 | 81.7 | 78.5 |
| 6 | 44.6 | 45.6 | 39.2 | 39.6 | 46.3 | 40.8 | 40.8 | 43.5 |
| 7 | 34.0 | 31.0 | 26.4 | 25.7 | 31.4 | 32.4 | 32.8 | 31.3 |
| 8 | 41.4 | 34.8 | 28.3 | 7.9 | 42.8 | 38.0 | 49.6 | 37.4 |
| 9 | 77.3 | 74.7 | 67.0 | 64.7 | 73.0 | 77.3 | 78.6 | 73.9 |
| 10 | 85.3 | 82.3 | 78.8 | 71.9 | 80.7 | 88.7 | 84.8 | 82.3 |
| 11 | 57.9 | 50.6 | 60.8 | 56.4 | 59.1 | 64.8 | 56.0 | 59.0 |
| 12 | 64.2 | 58.9 | 52.4 | 60.0 | 63.7 | 62.7 | 63.2 | 61.7 |
| 13 | 64.1 | 57.3 | 51.9 | 54.7 | 60.0 | 55.3 | 54.0 | 58.1 |
| 14 | 40.0 | 25.3 | 34.9 | 30.9 | 38.4 | 41.5 | 33.6 | 36.7 |
| 15 | 83.0 | 72.8 | 68.9 | 71.4 | 79.8 | 77.3 | 7.9 | 72.9 |
| 16 | 56.3 | 62.7 | 61.8 | 53.6 | 62.3 | 66.9 | 48.0 | 58.9 |
| 17 | 64.2 | 61.4 | 60.8 | 58.3 | 61.4 | 63.8 | 56.3 | 61.8 |
| 18 | 88.8 | 81.6 | 81.6 | 85.7 | 84.0 | 92.3 | 84.8 | 85.9 |
| 19 | 86.5 | 83.5 | 79.2 | 75.0 | 82.6 | 87.3 | 84.8 | 83.4 |
| 20 | 86.7 | 83.5 | 81.6 | 67.9 | 7.0 | 85.2 | 76.8 | 63.7 |
| 21 | 84.1 | 80.4 | 75.5 | 71.2 | 82.6 | 87.3 | 84.1 | 81.6 |
| 22 | 84.1 | 74.7 | 75.0 | 67.1 | 76.3 | 78.9 | 80.0 | 78.3 |

TABLE XL (CONT.)

| Test Item | Berkeley | Grant | Hampshire | Hardy | COUNTY Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|
| 23 | 81.6 | 75.3 | 73.6 | 64.3 | 77.4 | 88.7 | 70.4 | 77.4 |
| 24 | 59.6 | 57.6 | 51.9 | 48.6 | 6.5 | 67.0 | 52.0 | 77.5 |
| 25 | 90.8 | 84.8 | 80.7 | 75.5 | 87.4 | 90.8 | 81.0 | 86.3 |
| 26 | 65.3 | 60.1 | 60.8 | 57.9 | 60.5 | 63.4 | 68.0 | 62.6 |
| 27 | 45.7 | 43.7 | 45.8 | 44.3 | 46.7 | 42.3 | 45.6 | 45.4 |
| 28 | 44.1 | 38.6 | 39.2 | 49.3 | 47.4 | 44.4 | 45.6 | 44.4 |
| 29 | 65.1 | 62.7 | 66.0 | 57.6 | 64.4 | 67.6 | 65.6 | 64.5 |
| 30 | 61.2 | 49.4 | 60.8 | 59.3 | 64.2 | 69.7 | 60.0 | 60.6 |
| 31 | 44.6 | 51.3 | 57.1 | 46.4 | 46.0 | 46.5 | 55.2 | 48.0 |
| 32 | 47.1 | 49.4 | 51.0 | 55.0 | 48.1 | 43.0 | 38.4 | 47.7 |
| 33 | 34.0 | 23.4 | 26.4 | 29.5 | 27.0 | 31.7 | 32.0 | 29.8 |
| 34 | 79.3 | 70.9 | 72.2 | 62.1 | 43.7 | 76.1 | 80.8 | 67.5 |
| 35 | 54.7 | 48.1 | 51.4 | 50.7 | 50.0 | 56.3 | 44.8 | 51.7 |
| | | | | | PART II | | | |
| 1 | 78.2 | 69.6 | 67.0 | 78.4 | 73.3 | 71.1 | 77.6 | 74.3 |
| 2 | 36.6 | 29.1 | 41.0 | 62.1 | 34.9 | 25.4 | 38.4 | 37.3 |
| 3 | 61.6 | 58.2 | 53.3 | 56.4 | 57.9 | 58.5 | 54.4 | 58.2 |
| 4 | 56.6 | 56.3 | 39.2 | 42.9 | 53.3 | 50.0 | 63.2 | 52.6 |
| 5 | 44.2 | 43.0 | 49.5 | 39.6 | 42.1 | 55.6 | 43.7 | 39.0 |
| 6 | 64.2 | 61.4 | 57.5 | 60.0 | 63.5 | 66.2 | 68.0 | 63.1 |
| 7 | 36.3 | 44.9 | 42.5 | 42.9 | 37.4 | 43.7 | 48.0 | 40.0 |
| 8 | 43.2 | 59.5 | 50.5 | 55.0 | 67.2 | 70.4 | 52.8 | 55.1 |
| 9 | 33.6 | 28.5 | 35.8 | 46.8 | 36.5 | 43.0 | 36.8 | 36.1 |
| 10 | 33.3 | 29.7 | 35.8 | 41.4 | 36.7 | 39.4 | 45.6 | 37.0 |
| 11 | 44.4 | 39.9 | 39.2 | 48.6 | 41.6 | 45.8 | 49.6 | 43.5 |
| 12 | 43.2 | 33.5 | 34.9 | 35.0 | 56.0 | 40.8 | 44.8 | 47.8 |

TABLE XL (CONT.)

| Test Item | Berkeley | Grant | Hampshire | Hardy | COUNTY Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|
| 13 | 69.2 | 60.1 | 67.9 | 64.7 | 65.8 | 67.6 | 71.2 | 67.1 |
| 14 | 51.2 | 48.7 | 45.3 | 52.9 | 52.3 | 45.8 | 49.6 | 50.1 |
| 15 | 49.4 | 43.7 | 45.3 | 46.4 | 49.5 | 48.6 | 52.8 | 48.4 |
| 16 | 37.9 | 33.5 | 38.2 | 30.0 | 36.3 | 33.8 | 36.0 | 36.1 |
| 17 | 54.9 | 39.9 | 48.1 | 43.2 | 57.7 | 55.6 | 52.8 | 52.4 |
| 18 | 43.7 | 37.3 | 38.2 | 34.3 | 46.0 | 47.2 | 40.8 | 42.4 |
| 19 | 32.8 | 36.7 | 37.3 | 47.1 | 39.8 | 31.0 | 39.2 | 34.4 |
| 20 | 42.1 | 44.3 | 39.2 | 36.4 | 45.8 | 45.1 | 52.8 | 43.4 |
| 21 | 80.5 | 69.6 | 73.6 | 71.9 | 78.6 | 79.6 | 84.0 | 77.7 |
| 22 | 53.3 | 46.2 | 45.8 | 49.3 | 53.7 | 50.0 | 52.0 | 51.2 |
| 23 | 64.4 | 57.6 | 57.1 | 54.3 | 62.8 | 56.3 | 62.4 | 61.0 |
| 24 | 68.5 | 60.1 | 63.2 | 62.1 | 59.5 | 72.5 | 68.0 | 64.7 |
| 25 | 63.0 | 50.0 | 52.4 | 54.7 | 56.7 | 61.3 | 64.8 | 58.4 |
| 26 | 20.7 | 22.8 | 22.2 | 25.0 | 22.6 | 26.1 | 23.2 | 22.5 |
| 27 | 31.0 | 31.0 | 30.7 | 26.4 | 32.8 | 40.8 | 52.8 | 33.4 |
| 28 | 38.4 | 32.9 | 34.4 | 31.4 | 36.7 | 31.7 | 34.4 | 35.6 |
| 29 | 39.8 | 29.7 | 41.0 | 34.5 | 42.3 | 35.2 | 44.8 | 39.2 |
| 30 | 47.8 | 42.4 | 49.1 | 55.0 | 47.2 | 46.5 | 47.2 | 45.3 |
| 31 | 67.8 | 55.7 | 55.2 | 59.3 | 68.6 | 60.6 | 62.4 | 63.8 |
| 32 | 57.2 | 50.6 | 49.5 | 50.7 | 55.1 | 42.3 | 54.4 | 53.3 |
| 33 | 66.2 | 51.9 | 60.8 | 46.8 | 62.8 | 65.5 | 61.6 | 61.5 |
| 34 | 18.9 | 19.0 | 13.7 | 20.0 | 23.5 | 19.7 | 14.4 | 19.2 |
| 35 | 39.1 | 35.4 | 36.3 | 34.3 | 37.0 | 42.3 | 35.2 | 37.5 |

TABLE XLI

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSE
PER TEST ITEM: SEQUENTIAL TEST OF EDUCATIONAL PROGRESS, SOCIAL STUDIES, GRADE 11
1969-70 BY COUNTY AND REGION

| Test Item | Berkley | Grant | Hampshire | COUNTY Hardy | Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|
| | | | | PART I | | | | |
| 1 | 21.8 | 21.4 | 21.5 | 31.3 | 27.8 | 23.6 | 17.8 | 24.7 |
| 2 | 45.4 | 47.0 | 37.4 | 40.0 | 46.3 | 47.2 | 43.0 | 44.0 |
| 3 | 42.0 | 37.6 | 30.7 | 45.3 | 46.3 | 55.3 | 47.7 | 43.7 |
| 4 | 67.2 | 50.4 | 66.3 | 61.3 | 67.2 | 62.6 | 78.5 | 65.2 |
| 5 | 45.4 | 30.8 | 36.2 | 38.7 | 49.2 | 53.7 | 37.4 | 43.1 |
| 6 | 40.3 | 72.6 | 42.3 | 41.3 | 25.7 | 61.0 | 63.6 | 43.6 |
| 7 | 31.1 | 34.2 | 32.5 | 35.3 | 34.1 | 57.4 | 29.9 | 35.8 |
| 8 | 40.3 | 42.7 | 42.3 | 48.0 | 51.3 | 54.5 | 57.0 | 48.5 |
| 9 | 61.3 | 50.4 | 57.4 | 65.3 | 59.0 | 64.2 | 72.0 | 60.7 |
| 10 | 58.0 | 55.5 | 46.0 | 52.7 | 53.7 | 59.3 | 50.5 | 53.4 |
| 11 | 21.8 | 31.6 | 31.9 | 30.7 | 35.2 | 43.1 | 39.3 | 33.6 |
| 12 | 42.0 | 38.5 | 37.4 | 38.7 | 43.1 | 47.2 | 43.0 | 41.6 |
| 13 | 60.0 | 49.6 | 49.4 | 47.3 | 52.9 | 56.9 | 47.7 | 52.0 |
| 14 | 34.5 | 28.2 | 29.4 | 24.0 | 26.7 | 26.0 | 22.4 | 27.2 |
| 15 | 23.5 | 19.7 | 13.5 | 16.0 | 18.0 | 20.3 | 14.0 | 17.7 |
| 16 | 54.6 | 54.7 | 57.1 | 56.9 | 60.1 | 57.7 | 50.5 | 57.0 |
| 17 | 71.4 | 75.2 | 65.0 | 67.3 | 74.1 | 74.8 | 68.2 | 17.3 |
| 18 | 17.6 | 15.4 | 21.5 | 16.7 | 14.3 | 14.6 | 19.6 | 16.6 |
| 19 | 32.8 | 26.5 | 28.8 | 29.3 | 28.3 | 32.5 | 23.4 | 28.8 |
| 20 | 30.3 | 24.8 | 33.1 | 23.3 | 25.4 | 25.2 | 25.2 | 26.6 |
| 21 | 32.8 | 35.0 | 36.8 | 34.7 | 40.2 | 48.8 | 32.7 | 37.9 |
| 22 | 47.7 | 35 | 38.0 | 37.3 | 39.9 | 31.7 | 32.7 | 38.1 |
| 23 | 41.2 | 32.5 | 41.7 | 45.3 | 38.4 | 43.1 | 39.3 | 40.0 |
| 24 | 34.5 | 27.4 | 32.5 | 31.3 | 34.7 | 40.7 | 33.6 | 33.7 |

TABLE XLI (CONT.)

| Test Item | Berkley | Grant | Hampshire | COUNTY Hardy | Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|
| 25 | 34.5 | 39.3 | 36.2 | 46.0 | 37.6 | 40.7 | 43.0 | 39.2 |
| 26 | 26.1 | 39.3 | 42.3 | 45.3 | 41.8 | 62.6 | 43.0 | 42.8 |
| 27 | 40.3 | 45.3 | 43.6 | 40.0 | 41.3 | 44.7 | 46.7 | 42.6 |
| 28 | 37.8 | 25.6 | 39.9 | 38.7 | 28.6 | 28.5 | 36.4 | 32.9 |
| 29 | 48.7 | 48.7 | 52.8 | 56.7 | 50.8 | 64.2 | 59.9 | 53.9 |
| 30 | 46.2 | 53.0 | 53.4 | 63.3 | 51.6 | 47.2 | 58.9 | 53.2 |
| 31 | 19.3 | 29.1 | 29.4 | 28.7 | 31.2 | 26.0 | 38.3 | 29.3 |
| 32 | 47.9 | 40.0 | 40.5 | 47.3 | 39.9 | 45.5 | 46.7 | 42.9 |
| 33 | 57.1 | 68.4 | 56.4 | 60.0 | 69.8 | 62.6 | 59.8 | 63.5 |
| 34 | 20.2 | 22.2 | 22.1 | 20.0 | 23.5 | 19.5 | 22.4 | 21.9 |
| 35 | 62.2 | 54.7 | 49.7 | 57.3 | 64.8 | 59.3 | 58.9 | 59.3 |
| | | | | PART II | | | | |
| 1 | 70.6 | 61.5 | 66.9 | 73.3 | 77.8 | 75.6 | 83.2 | 73.6 |
| 2 | 78.2 | 69.2 | 73.6 | 84.7 | 77.5 | 79.7 | 81.3 | 77.7 |
| 3 | 25.2 | 27.4 | 25.2 | 34.0 | 30.2 | 28.5 | 26.2 | 55.8 |
| 4 | 34.5 | 27.4 | 27.6 | 28.0 | 33.9 | 35.0 | 29.9 | 31.4 |
| 5 | 20.2 | 26.5 | 23.3 | 26.- | 26.5 | 20.3 | 18.7 | 24.0 |
| 6 | 40.3 | 41.9 | 33.1 | 48.0 | 38.4 | 39.8 | 43.9 | 40.1 |
| 7 | 66.4 | 59.8 | 64.4 | 79.3 | 69.6 | 71.5 | 79.4 | 69.9 |
| 8 | 26.9 | 27.4 | 35.6 | 33.3 | 31.7 | 29.3 | 36.4 | 31.7 |
| 9 | 31.1 | 25.6 | 31.3 | 38.0 | 30.4 | 43.9 | 34.6 | 32.9 |
| 10 | 38.7 | 29.9 | 35.0 | 53.3 | 32.8 | 26.0 | 54.2 | 37.3 |
| 11 | 47.9 | 53.0 | 49.1 | 51.3 | 58.9 | 60.2 | 60.7 | 55.1 |
| 12 | 31.1 | 31.6 | 30.7 | 36.0 | 40.2 | 34.1 | 33.6 | 35.3 |
| 13 | 36.1 | 32.5 | 36.2 | 34.7 | 42.9 | 38.2 | 32.7 | 37.7 |
| 14 | 36.1 | 39.3 | 30.1 | 28.7 | 39.9 | 30.9 | 17.8 | 29.2 |
| 15 | 64.7 | 53.8 | 53.4 | 76.0 | 62.2 | 56.1 | 66.4 | 61.9 |

TABLE XLI (CONT.)

| Test Item | Berkley | Grant | Hampshire | COUNTY Hardy | Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|
| 16 | 42.0 | 41.9 | 37.4 | 35.3 | 43.9 | 39.8 | 36.4 | 40.3 |
| 17 | 52.9 | 59.0 | 49.7 | 56.7 | 53.2 | 48.8 | 39.8 | 51.0 |
| 18 | 43.7 | 41.0 | 42.9 | 41.3 | 46.3 | 51.2 | 44.9 | 44.8 |
| 19 | 27.7 | 42.7 | 32.5 | 36.7 | 34.9 | 29.3 | 31.8 | 34.0 |
| 20 | 56.3 | 43.6 | 46.6 | 57.3 | 50.5 | 49.6 | 57.9 | 49.9 |
| 21 | 42.9 | 38.5 | 31.9 | 42.0 | 36.8 | 35.0 | 43.9 | 38.0 |
| 22 | 55.5 | 45.3 | 46.0 | 51.3 | 50.5 | 54.5 | 59.8 | 51.2 |
| 23 | 70.6 | 72.6 | 74.2 | 80.0 | 69.0 | 74.8 | 73.8 | 72.7 |
| 24 | 16.8 | 17.9 | 14.1 | 12.0 | 17.5 | 19.5 | 10.3 | 15.8 |
| 25 | 57.1 | 59.8 | 52.8 | 63.3 | 65.1 | 65.9 | 55.1 | 60.9 |
| 26 | 59.7 | 53.0 | 61.3 | 67.3 | 66.9 | 61.0 | 68.2 | 63.5 |
| 27 | 32.8 | 30.8 | 30.1 | 32.7 | 36.2 | 35.0 | 40.2 | 31.8 |
| 28 | 73.1 | 73.5 | 74.2 | 78.7 | 76.2 | 69.1 | 72.9 | 74.6 |
| 29 | 39.5 | 44.4 | 39.9 | 49.3 | 51.6 | 36.6 | 43.9 | 45.4 |
| 30 | 33.6 | 30.8 | 31.3 | 35.3 | 33.1 | 26.8 | 32.7 | 32.2 |
| 31 | 30.3 | 51.6 | 30.7 | 36.0 | 35.7 | 22.8 | 41.1 | 35.2 |
| 32 | 71.4 | 71.8 | 63.8 | 72.7 | 68.0 | 73.2 | 72.0 | 66.3 |
| 33 | 60.5 | 58.1 | 58.9 | 60.0 | 62.2 | 55.3 | 59.8 | 59.9 |
| 34 | 49.6 | 67.5 | 46.6 | 59.3 | 54.0 | 59.3 | 66.4 | 56.3 |
| 35 | 31.1 | 55.6 | 39.3 | 38.0 | 38.9 | 40.7 | 48.6 | 40.5 |

TABLE XLII

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSE PER TEST ITEM: STANFORD ACHIEVEMENT TEST, ARITHMETIC APPLICATION, GRADE 6 1969-70 BY COUNTY AND REGION

| Test Item | County | | | | | | | Region |
|---|---|---|---|---|---|---|---|---|
| | Berkeley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | |
| 1 | 78 | 77 | 68 | 69 | 74 | 68 | 71 | 74 |
| 2 | 75 | 76 | 68 | 73 | 77 | 78 | 71 | 75 |
| 3 | 75 | 80 | 69 | 75 | 76 | 71 | 71 | 74 |
| 4 | 63 | 69 | 58 | 58 | 63 | 54 | 63 | 62 |
| 5 | 73 | 75 | 73 | 70 | 68 | 69 | 63 | 71 |
| 6 | 76 | 70 | 70 | 70 | 71 | 62 | 63 | 71 |
| 7 | 77 | 81 | 74 | 69 | 70 | 75 | 72 | 74 |
| 8 | 63 | 65 | 55 | 66 | 58 | 62 | 50 | 61 |
| 9 | 63 | 65 | 51 | 55 | 62 | 48 | 53 | 59 |
| 10 | 47 | 33 | 30 | 35 | 48 | 37 | 37 | 41 |
| 11 | 65 | 65 | 53 | 55 | 61 | 55 | 59 | 61 |
| 12 | 45 | 51 | 45 | 48 | 44 | 32 | 47 | 44 |
| 13 | 75 | 73 | 63 | 67 | 69 | 76 | 66 | 71 |
| 14 | 60 | 64 | 48 | 52 | 56 | 60 | 53 | 57 |
| 15 | 55 | 49 | 46 | 52 | 52 | 43 | 40 | 50 |
| 16 | 53 | 63 | 63 | 57 | 47 | 38 | 50 | 52 |
| 17 | 67 | 70 | 59 | 68 | 66 | 66 | 50 | 65 |
| 18 | 59 | 62 | 59 | 61 | 56 | 54 | 41 | 57 |
| 19 | 36 | 40 | 40 | 39 | 37 | 38 | 49 | 38 |
| 20 | 32 | 31 | 25 | 26 | 32 | 25 | 54 | 31 |

TABLE XLII (CONT.)

| Test Item | County | | | | | | | Region |
|---|---|---|---|---|---|---|---|---|
| | Berkeley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | |
| 21 | 62 | 67 | 55 | 64 | 62 | 54 | 58 | 61 |
| 22 | 47 | 47 | 52 | 54 | 49 | 35 | 46 | 47 |
| 23 | 43 | 35 | 39 | 51 | 42 | 36 | 33 | 41 |
| 24 | 48 | 49 | 35 | 47 | 44 | 42 | 38 | 44 |
| 25 | 48 | 46 | 48 | 55 | 45 | 38 | 42 | 46 |
| 26 | 59 | 65 | 55 | 65 | 51 | 55 | 57 | 57 |
| 27 | 40 | 40 | 38 | 43 | 38 | 30 | 33 | 38 |
| 28 | 41 | 40 | 40 | 45 | 33 | 36 | 31 | 38 |
| 29 | 33 | 26 | 20 | 35 | 33 | 26 | 25 | 30 |
| 30 | 35 | 43 | 37 | 52 | 36 | 41 | 40 | 39 |
| 31 | 33 | 44 | 34 | 38 | 34 | 30 | 24 | 34 |
| 32 | 26 | 22 | 22 | 28 | 28 | 21 | 26 | 25 |
| 33 | 40 | 38 | 38 | 40 | 39 | 39 | 37 | 39 |
| 34 | 53 | 62 | 58 | 61 | 54 | 59 | 47 | 55 |
| 35 | 25 | 25 | 23 | 34 | 25 | 28 | 24 | 26 |
| 36 | 38 | 51 | 32 | 48 | 39 | 39 | 34 | 39 |
| 37 | 23 | 17 | 16 | 27 | 22 | 19 | 20 | 21 |
| 38 | 8 | 6 | 7 | 6 | 7 | 6 | 14 | 8 |
| 39 | 20 | 19 | 18 | 13 | 14 | 19 | 20 | 18 |

TABLE XLIII

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER TEST ITEM: STANFORD ACHIEVEMENT TEST, ARITHMETIC COMPUTATION, GRADE 6 1969-70 BY COUNTY AND REGION

| Test Item | County | | | | | | | Region |
|---|---|---|---|---|---|---|---|---|
| | Berkeley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | |
| 1 | 85 | 83 | 87 | 88 | 76 | 86 | 72 | 83 |
| 2 | 78 | 78 | 75 | 80 | 80 | 83 | 79 | 79 |
| 3 | 79 | 79 | 79 | 79 | 73 | 74 | 65 | 76 |
| 4 | 72 | 71 | 78 | 76 | 70 | 77 | 67 | 72 |
| 5 | 65 | 67 | 71 | 70 | 60 | 66 | 60 | 65 |
| 6 | 69 | 66 | 69 | 77 | 65 | 76 | 63 | 69 |
| 7 | 66 | 72 | 81 | 71 | 65 | 63 | 69 | 68 |
| 8 | 67 | 60 | 70 | 75 | 58 | 75 | 52 | 65 |
| 9 | 43 | 46 | 65 | 64 | 46 | 44 | 46 | 48 |
| 10 | 68 | 67 | 74 | 74 | 63 | 65 | 60 | 67 |
| 11 | 70 | 67 | 75 | 78 | 64 | 72 | 70 | 70 |
| 12 | 68 | 70 | 78 | 75 | 64 | 65 | 70 | 69 |
| 13 | 61 | 61 | 72 | 67 | 55 | 66 | 69 | 62 |
| 14 | 61 | 62 | 67 | 70 | 57 | 57 | 57 | 61 |
| 15 | 60 | 57 | 67 | 71 | 59 | 71 | 69 | 63 |
| 16 | 31 | 47 | 55 | 46 | 37 | 32 | 42 | 38 |
| 17 | 57 | 64 | 50 | 61 | 52 | 29 | 50 | 53 |
| 18 | 46 | 48 | 54 | 53 | 43 | 48 | 46 | 47 |
| 19 | 28 | 22 | 59 | 60 | 33 | 30 | 53 | 37 |
| 20 | 43 | 36 | 42 | 51 | 37 | 48 | 39 | 42 |

TABLE XLIII (CONT.)

| Test Item | County | | | | | | | Region |
|---|---|---|---|---|---|---|---|---|
| | Berkeley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | |
| 21 | 30 | 25 | 51 | 42 | 30 | 34 | 37 | 34 |
| 22 | 55 | 53 | 72 | 62 | 56 | 65 | 61 | 59 |
| 23 | 58 | 54 | 68 | 63 | 58 | 58 | 61 | 59 |
| 24 | 49 | 28 | 65 | 62 | 41 | 49 | 48 | 48 |
| 25 | 58 | 67 | 75 | 75 | 62 | 72 | 70 | 65 |
| 26 | 42 | 31 | 60 | 53 | 42 | 42 | 49 | 44 |
| 27 | 54 | 37 | 50 | 46 | 48 | 42 | 41 | 48 |
| 28 | 32 | 35 | 54 | 51 | 32 | 46 | 49 | 39 |
| 29 | 35 | 35 | 41 | 52 | 34 | 34 | 37 | 37 |
| 30 | 29 | 28 | 49 | 56 | 26 | 40 | 58 | 36 |
| 31 | 40 | 46 | 40 | 50 | 33 | 25 | 39 | 38 |
| 32 | 26 | 23 | 43 | 41 | 25 | 32 | 55 | 31 |
| 33 | 30 | 27 | 35 | 38 | 30 | 30 | 32 | 31 |
| 34 | 16 | 14 | 30 | 29 | 20 | 20 | 34 | 21 |
| 35 | 20 | 19 | 24 | 27 | 22 | 18 | 31 | 22 |
| 36 | 10 | 5 | 12 | 14 | 9 | 7 | 17 | 10 |
| 37 | 5 | 6 | 8 | 11 | 5 | 8 | 13 | 7 |
| 38 | 8 | 6 | 10 | 10 | 9 | 11 | 17 | 9 |
| 39 | 3 | 1 | 5 | 11 | 2 | 5 | 7 | 4 |

TABLE XLIV

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER TEST ITEM: STANFORD ACHIEVEMENT TEST, ARITHMETIC CONCEPTS, GRADE 6 1969-70 BY COUNTY AND REGION

| Test Item | County | | | | | | | Region |
|---|---|---|---|---|---|---|---|---|
| | Berkeley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | |
| 1 | 67 | 67 | 73 | 72 | 66 | 68 | 68 | 68 |
| 2 | 75 | 78 | 68 | 56 | 69 | 58 | 59 | 69 |
| 3 | 79 | 83 | 66 | 75 | 66 | 66 | 62 | 72 |
| 4 | 78 | 81 | 79 | 78 | 73 | 83 | 79 | 78 |
| 5 | 72 | 73 | 55 | 70 | 60 | 58 | 46 | 64 |
| 6 | 52 | 71 | 60 | 64 | 47 | 61 | 59 | 56 |
| 7 | 57 | 65 | 47 | 56 | 51 | 27 | 50 | 52 |
| 8 | 74 | 75 | 74 | 76 | 74 | 71 | 63 | 73 |
| 9 | 71 | 72 | 74 | 73 | 71 | 68 | 66 | 71 |
| 10 | 55 | 57 | 54 | 55 | 55 | 57 | 48 | 55 |
| 11 | 72 | 77 | 69 | 73 | 64 | 65 | 61 | 69 |
| 12 | 33 | 18 | 42 | 38 | 28 | 28 | 37 | 32 |
| 13 | 43 | 31 | 50 | 47 | 45 | 51 | 37 | 44 |
| 14 | 65 | 69 | 46 | 58 | 59 | 55 | 51 | 60 |
| 15 | 42 | 44 | 34 | 40 | 42 | 38 | 29 | 40 |
| 16 | 67 | 74 | 56 | 58 | 60 | 66 | 51 | 63 |
| 17 | 39 | 29 | 48 | 45 | 37 | 30 | 39 | 38 |
| 18 | 56 | 52 | 53 | 57 | 53 | 64 | 43 | 55 |
| 19 | 47 | 46 | 51 | 49 | 39 | 52 | 45 | 46 |
| 20 | 36 | 38 | 27 | 33 | 34 | 26 | 33 | 33 |

TABLE XLIV (CONT.)

| Test Item | County | | | | | | | Region |
|---|---|---|---|---|---|---|---|---|
| | Berkeley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | |
| 21 | 39 | 21 | 25 | 27 | 28 | 37 | 35 | 32 |
| 22 | 58 | 43 | 41 | 38 | 53 | 53 | 38 | 50 |
| 23 | 30 | 26 | 20 | 24 | 25 | 18 | 23 | 25 |
| 24 | 21 | 20 | 24 | 29 | 26 | 24 | 19 | 23 |
| 25 | 31 | 38 | 36 | 40 | 29 | 27 | 27 | 32 |
| 26 | 34 | 22 | 24 | 32 | 25 | 43 | 29 | 30 |
| 27 | 16 | 17 | 18 | 27 | 15 | 14 | 24 | 17 |
| 28 | 35 | 44 | 38 | 43 | 41 | 42 | 35 | 39 |
| 29 | 32 | 44 | 34 | 43 | 34 | 38 | 33 | 35 |
| 30 | 17 | 20 | 20 | 26 | 20 | 20 | 16 | 19 |
| 31 | 16 | 22 | 17 | 14 | 17 | 15 | 22 | 17 |
| 32 | 22 | 23 | 18 | 25 | 18 | 14 | 26 | 21 |

TABLE XLV

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER TEST ITEM: SEQUENTIAL TEST OF EDUCATIONAL PROGRESS, MATH, GRADE 9 1969-70 BY COUNTY AND REGION

| Test Item | Berkeley | Grant | Hampshire | Hardy | COUNTY Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|
| | | | | | PART I | | | |
| 1 | 75.2 | 65.8 | 65.7 | 66.9 | 72.5 | 68.8 | 66.7 | 70.8 |
| 2 | 83.8 | 77.2 | 84.0 | 84.2 | 79.9 | 78.7 | 85.7 | 82.0 |
| 3 | 61.6 | 44.3 | 55.4 | 52.5 | 54.3 | 49.6 | 55.6 | 55.4 |
| 4 | 62.0 | 61.4 | 62.4 | 61.9 | 64.2 | 70.2 | 65.1 | 63.4 |
| 5 | 19.8 | 22.2 | 21.1 | 21.6 | 22.4 | 22.7 | 18.3 | 21.1 |
| 6 | 61.1 | 53.8 | 41.8 | 49.0 | 58.0 | 55.3 | 57.9 | 55.8 |
| 7 | 37.3 | 36.7 | 31.9 | 41.7 | 28.6 | 32.6 | 36.5 | 34.4 |
| 8 | 39.3 | 43.7 | 27.2 | 30.2 | 34.4 | 26.2 | 33.3 | 34.8 |
| 9 | 30.8 | 21.5 | 36.6 | 29.5 | 39.0 | 35.5 | 31.7 | 33.0 |
| 10 | 49.3 | 39.9 | 48.4 | 53.2 | 46.9 | 51.8 | 50.0 | 48.3 |
| 11 | 31.9 | 47.5 | 36.2 | 41.7 | 37.2 | 46.8 | 31.7 | 37.0 |
| 12 | 53.5 | 53.2 | 47.9 | 53.2 | 46.9 | 50.4 | 53.2 | 50.9 |
| 13 | 53.2 | 56.3 | 43.7 | 49.6 | 53.3 | 53.9 | 48.4 | 51.8 |
| 14 | 78.3 | 70.9 | 63.4 | 71.2 | 77.8 | 79.4 | 71.4 | 74.8 |
| 15 | 66.7 | 57.0 | 58.7 | 59.7 | 59.1 | 70.9 | 69.0 | 63.0 |
| 16 | 64.3 | 59.5 | 51.2 | 69.1 | 64.7 | 55.3 | 53.2 | 61.3 |
| 17 | 31.9 | 24.1 | 30.5 | 30.2 | 31.6 | 25.5 | 24.6 | 29.0 |
| 18 | 58.3 | 56.3 | 55.4 | 55.4 | 55.9 | 56.7 | 60.3 | 57.0 |
| 19 | 68.3 | 60.1 | 68.5 | 70.5 | 68.1 | 68.8 | 69.8 | 67.9 |
| 20 | 32.0 | 20.9 | 37.1 | 28.8 | 32.8 | 43.3 | 36.5 | 32.8 |
| 21 | 56.5 | 46.2 | 54.5 | 51.8 | 51.0 | 61.7 | 55.6 | 54.0 |
| 22 | 65.5 | 53.8 | 67.1 | 61.9 | 65.8 | 68.1 | 66.7 | 64.7 |
| 23 | 30.4 | 22.8 | 29.6 | 46.0 | 34.2 | 34.0 | 35.7 | 32.4 |

TABLE XLV (CONT.)

| Test Item | Berkeley | Grant | Hampshire | Hardy | COUNTY Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|
| 24 | 41.4 | 45.6 | 43.2 | 46.0 | 46.0 | 39.7 | 46.0 | 43.7 |
| 25 | 43.8 | 43.7 | 40.4 | 40.3 | 46.9 | 39.7 | 46.0 | 43.7 |
| | | | | | PART II | | | |
| 1 | 61.8 | 54.4 | 68.1 | 69.8 | 60.3 | 61.0 | 61.9 | 62.1 |
| 2 | 52.1 | 53.2 | 52.6 | 60.4 | 57.3 | 51.8 | 54.8 | 54.3 |
| 3 | 19.0 | 18.4 | 17.4 | 15.8 | 22.6 | 13.5 | 13.5 | 18.6 |
| 4 | 63.6 | 60.1 | 67.6 | 71.2 | 66.3 | 68.8 | 64.3 | 65.5 |
| 5 | 64.3 | 62.0 | 59.6 | 56.8 | 61.0 | 46.8 | 61.1 | 60.5 |
| 6 | 73.6 | 69.0 | 59.6 | 73.4 | 75.5 | 69.5 | 75.4 | 71.8 |
| 7 | 59.1 | 56.3 | 53.1 | 63.3 | 64.2 | 58.9 | 57.1 | 59.6 |
| 8 | 51.9 | 34.8 | 43.7 | 49.6 | 54.7 | 46.8 | 54.0 | 49.6 |
| 9 | 49.6 | 43.0 | 48.8 | 47.5 | 51.3 | 46.1 | 46.8 | 48.7 |
| 10 | 19.0 | 27.2 | 18.8 | 25.9 | 27.7 | 27.7 | 28.6 | 23.8 |
| 11 | 51.2 | 36.7 | 42.7 | 47.5 | 51.0 | 54.6 | 42.9 | 48.2 |
| 12 | 65.0 | 53.2 | 49.8 | 53.2 | 63.3 | 61.0 | 55.6 | 59.8 |
| 13 | 68.3 | 54.4 | 61.0 | 61.9 | 63.3 | 57.4 | 67.5 | 63.5 |
| 14 | 37.9 | 26.6 | 31.9 | 30.9 | 37.9 | 44.7 | 27.8 | 35.5 |
| 15 | 14.3 | 23.4 | 16.9 | 14.4 | 19.3 | 12.1 | 23.0 | 17.1 |
| 16 | 62.1 | 49.4 | 54.5 | 64.7 | 54.4 | 60.3 | 64.3 | 58.1 |
| 17 | 36.6 | 28.5 | 30.0 | 38.1 | 27.9 | 31.2 | 39.7 | 30.3 |
| 18 | 54.0 | 46.8 | 46.5 | 61.9 | 45.0 | 58.9 | 52.8 | 51.2 |
| 19 | 23.9 | 28.5 | 28.2 | 31.7 | 32.3 | 30.5 | 31.7 | 28.6 |
| 20 | 62.3 | 61.4 | 62.9 | 61.9 | 59.6 | 66.0 | 61.9 | 61.9 |
| 21 | 35.6 | 33.5 | 35.6 | 36.0 | 33.9 | 37.6 | 30.2 | 34.8 |
| 22 | 50.7 | 36.7 | 46.0 | 44.6 | 48.0 | 41.1 | 52.4 | 47.1 |

TABLE XLV (CONT.)

| Test Item | Berkeley | Grant | Hampshire | Hardy | COUNTY Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|
| 23 | 57.0 | 47.5 | 54.5 | 61.2 | 61.7 | 56.0 | 63.5 | 46.0 |
| 24 | 45.2 | 34.8 | 42.3 | 38.1 | 44.3 | 34.0 | 43.7 | 42.1 |
| 25 | 46.5 | 36.1 | 43.2 | 41.7 | 47.8 | 36.2 | 46.8 | 44.3 |

TABLE XLVI

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER TEST ITEM: SEQUENTIAL TEST OF EDUCATIONAL PROGRESS, MATH, GRADE 11 1969-70 BY COUNTY AND REGION

| Test Item | Berkley | Grant | Hampshire | COUNTY Hardy | Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|
| | | | | PART I | | | | |
| 1 | 57.6 | 50.4 | 63.8 | 66.2 | 60.6 | 61.8 | 72.0 | 61.6 |
| 2 | 28.8 | 21.5 | 22.7 | 27.7 | 26.6 | 40.7 | 37.4 | 28.4 |
| 3 | 50.8 | 45.3 | 44.2 | 50 | 45.7 | 39.8 | 47.7 | 46.1 |
| 4 | 30.5 | 29.1 | 31.3 | 27.0 | 30.9 | 35.8 | 26.2 | 30.3 |
| 5 | 44.1 | 48.7 | 55.2 | 50.7 | 48.1 | 52.8 | 43.9 | 49.2 |
| 6 | 38.1 | 39.3 | 36.2 | 47.3 | 40.7 | 44.7 | 40.2 | 40.9 |
| 7 | 47.5 | 28.2 | 40.5 | 32.4 | 37.8 | 36.6 | 36.4 | 37.2! |
| 8 | 68.6 | 53.8 | 59.5 | 58.1 | 60.6 | 66.7 | 75.7 | 62.3 |
| 9 | 31.4 | 29.1 | 20.9 | 20.9 | 24.2 | 25.2 | 21.5 | 24.4 |
| 10 | 68.6 | 77.8 | 65.6 | 73.0 | 64.4 | 77.2 | 66.4 | 69.0 |
| 11 | 58.5 | 59.0 | 50.9 | 57.4 | 57.7 | 64.2 | 53.3 | 57.2 |
| 12 | 44.1 | 35.4 | 33.7 | 35.8 | 39.6 | 41.5 | 42.1 | 38.7 |
| 13 | 41.5 | 46.2 | 30.1 | 46.6 | 39.1 | 35.0 | 63.6 | 41.6 |
| 14 | 40.8 | 41.9 | 38.7 | 37.2 | 40.7 | 26.0 | 44.9 | 39.1 |
| 15 | 42.4 | 38.5 | 25.2 | 27.7 | 33.0 | 37.4 | 43.0 | 34.1 |
| 16 | 93.2 | 88.0 | 94.4 | 93.2 | 91.0 | 94.3 | 95.3 | 92.4 |
| 17 | 54.2 | 36.7 | 54.0 | 57.4 | 50.8 | 57.7 | 60.7 | 52.7 |
| 18 | 29.7 | 17.9 | 33.7 | 32.4 | 27.4 | 24.4 | 40.2 | 29.1 |
| 19 | 42.4 | 41.0 | 42.3 | 40.5 | 37.5 | 37.4 | 45.8 | 40.2 |
| 20 | 35.6 | 27.3 | 40.5 | 41.2 | 39.1 | 38.2 | 37.4 | 37.8 |
| 21 | 34.7 | 41.0 | 50.9 | 46.6 | 48.7 | 46.3 | 47.6 | 46.2 |
| 22 | 33.1 | 21.4 | 17.2 | 29.7 | 22.6 | 21.1 | 20.6 | 23.4 |
| 23 | 15.3 | 25.6 | 18.4 | 25.0 | 21.3 | 21.1 | 13.1 | 20.4 |
| 24 | 26.3 | 31.6 | 28.8 | 33.1 | 29.3 | 39.0 | 27.1 | 30.5 |

TABLE XLVII

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER TEST ITEM: STANFORD ACHIEVEMENT TEST, SCIENCE, GRADE 6 1969-70 BY COUNTY AND REGION

| | County | | | | | | | Region |
|---|---|---|---|---|---|---|---|---|
| Test Item | Berkeley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | |
| 1 | 85 | 85 | 87 | 83 | 84 | 84 | 74 | 84 |
| 2 | 82 | 80 | 77 | 77 | 81 | 75 | 71 | 79 |
| 3 | 60 | 61 | 70 | 66 | 64 | 66 | 53 | 63 |
| 4 | 84 | 87 | 77 | 83 | 83 | 88 | 67 | 82 |
| 5 | 53 | 70 | 56 | 52 | 57 | 57 | 48 | 56 |
| 6 | 76 | 81 | 80 | 75 | 82 | 85 | 65 | 78 |
| 7 | 82 | 89 | 77 | 85 | 80 | 85 | 76 | 82 |
| 8 | 78 | 80 | 68 | 63 | 73 | 70 | 62 | 73 |
| 9 | 66 | 72 | 58 | 63 | 66 | 74 | 55 | 65 |
| 10 | 77 | 76 | 73 | 80 | 75 | 81 | 64 | 76 |
| 11 | 66 | 65 | 63 | 60 | 64 | 68 | 50 | 64 |
| 12 | 76 | 73 | 68 | 74 | 66 | 70 | 59 | 71 |
| 13 | 68 | 86 | 66 | 61 | 67 | 85 | 63 | 70 |
| 14 | 61 | 75 | 78 | 78 | 67 | 59 | 60 | 67 |
| 15 | 56 | 67 | 64 | 59 | 65 | 64 | 45 | 64 |
| 16 | 74 | 78 | 71 | 55 | 66 | 82 | 54 | 70 |
| 17 | 71 | 75 | 73 | 72 | 69 | 82 | 63 | 72 |
| 18 | 57 | 61 | 56 | 66 | 55 | 49 | 50 | 56 |
| 19 | 58 | 59 | 55 | 61 | 56 | 67 | 43 | 58 |
| 20 | 71 | 73 | 66 | 67 | 68 | 79 | 64 | 70 |

TABLE XLVI (CONT.)

| Test Item | Berkley | Grant | Hampshire | COUNTY Hardy | Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|
| 25 | 34.7 | 38.5 | 39.9 | 36.5 | 38.0 | 39.8 | 29.9 | 37.2 |
| | | | | PART II | | | | |
| 1 | 56.0 | 61.5 | 64.4 | 56.8 | 52.1 | 52.8 | 54.2 | 56.1 |
| 2 | 12.7 | 23.1 | 19.0 | 21.6 | 22.3 | 18.7 | 26.2 | 20.1 |
| 3 | 47.5 | 42.7 | 36.2 | 39.9 | 50.8 | 41.5 | 35.5 | 43.8 |
| 4 | 27.1 | 31.6 | 27.0 | 33.1 | 37.0 | 38.2 | 26.2 | 32.6 |
| 5 | 23.7 | 24.8 | 28.2 | 23.6 | 22.3 | 29.3 | 17.8 | 24.0 |
| 6 | 26.3 | 27.4 | 26.4 | 25.7 | 28.9 | 22.8 | 25.2 | 26.7 |
| 7 | 56.8 | 44.4 | 46.6 | 50.7 | 43.4 | 39.0 | 49.5 | 46.3 |
| 8 | 56.8 | 42.7 | 45.4 | 52.0 | 53.2 | 55.3 | 49.5 | 51.1 |
| 9 | 41.5 | 36.8 | 42.3 | 48.0 | 44.4 | 40.7 | 54.2 | 44.0 |
| 10 | 49.2 | 52.1 | 43.6 | 52.0 | 48.9 | 52.8 | 57.9 | 50.4 |
| 11 | 27.1 | 19.7 | 28.8 | 39.9 | 29.0 | 35.8 | 31.8 | 30.2 |
| 12 | 46.6 | 42.7 | 31.9 | 39.9 | 51.3 | 44.7 | 45.8 | 44.5 |
| 13 | 56.8 | 50.4 | 59.5 | 60.8 | 59.0 | 66.7 | 53.3 | 57.2 |
| 14 | 50.0 | 51.3 | 54.6 | 45.3 | 54.3 | 61.8 | 46.7 | 52.5 |
| 15 | 27.1 | 31.6 | 22.7 | 24.3 | 29.0 | 30.9 | 29.0 | 27.8 |
| 16 | 81.4 | 74.4 | 62.6 | 79.7 | 69.1 | 70.7 | 85.0 | 73.0 |
| 17 | 67.8 | 66.7 | 63.2 | 69.0 | 66.2 | 70.7 | 62.6 | 66.5 |
| 18 | 17.8 | 17.1 | 19.6 | 22.3 | 21.5 | 18.7 | 30.8 | 21.1 |
| 19 | 57.5 | 41.0 | 55.8 | 54.7 | 48.1 | 55.3 | 57.0 | 53.2 |
| 20 | 66.1 | 64.1 | 58.3 | 60.8 | 62.0 | 52.8 | 65.4 | 61.3 |
| 21 | 17.8 | 15.4 | 17.2 | 14.9 | 14.6 | 16.3 | 18.7 | 16.0 |
| 22 | 53.4 | 58.7 | 50.9 | 62.2 | 51.9 | 52.8 | 66.3 | 55.4 |
| 23 | 45.8 | 37.6 | 42.9 | 37.2 | 42.8 | 39.8 | 43.9 | 41.6 |
| 24 | 33.9 | 41.0 | 29.4 | 30.4 | 34.0 | 35.8 | 44.9 | 34.8 |
| 25 | 11.9 | 19.7 | 17.2 | 16.9 | 20.7 | 22.8 | 15.0 | 18.4 |

TABLE XLVII (CONT.)

| Test Item | County | | | | | | | Region |
|---|---|---|---|---|---|---|---|---|
| | Berkeley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | |
| 21 | 51 | 56 | 45 | 58 | 51 | 48 | 59 | 52 |
| 22 | 61 | 52 | 59 | 55 | 56 | 54 | 57 | 57 |
| 23 | 52 | 57 | 60 | 57 | 53 | 60 | 54 | 55 |
| 24 | 50 | 52 | 48 | 51 | 54 | 54 | 43 | 51 |
| 25 | 60 | 59 | 51 | 55 | 61 | 51 | 50 | 58 |
| 26 | 55 | 48 | 40 | 51 | 54 | 43 | 38 | 45 |
| 27 | 64 | 61 | 58 | 64 | 69 | 57 | 62 | 63 |
| 28 | 60 | 67 | 61 | 51 | 52 | 59 | 55 | 58 |
| 29 | 62 | 67 | 72 | 71 | 67 | 66 | 56 | 63 |
| 30 | 55 | 59 | 57 | 48 | 62 | 65 | 58 | 58 |
| 31 | 54 | 48 | 50 | 45 | 51 | 49 | 40 | 50 |
| 32 | 45 | 52 | 49 | 53 | 51 | 50 | 44 | 49 |
| 33 | 50 | 49 | 50 | 48 | 49 | 50 | 46 | 49 |
| 34 | 60 | 67 | 63 | 53 | 56 | 59 | 51 | 59 |
| 35 | 59 | 71 | 60 | 68 | 60 | 64 | 41 | 61 |
| 36 | 54 | 65 | 57 | 54 | 52 | 35 | 39 | 52 |
| 37 | 45 | 46 | 41 | 40 | 43 | 45 | 45 | 44 |
| 38 | 38 | 31 | 29 | 35 | 40 | 36 | 46 | 37 |
| 39 | 44 | 37 | 36 | 40 | 43 | 57 | 30 | 42 |
| 40 | 45 | 43 | 35 | 42 | 46 | 50 | 35 | 44 |
| 41 | 42 | 41 | 49 | 50 | 40 | 42 | 32 | 42 |
| 42 | 25 | 39 | 29 | 33 | 29 | 36 | 33 | 30 |

TABLE XLVII (CONT.)

| Test Item | County | | | | | | | Region |
|---|---|---|---|---|---|---|---|---|
| | Berkeley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | |
| 43 | 48 | 68 | 59 | 50 | 59 | 55 | 41 | 54 |
| 44 | 46 | 36 | 34 | 41 | 43 | 55 | 45 | 44 |
| 45 | 50 | 46 | 51 | 36 | 50 | 54 | 33 | 48 |
| 46 | 42 | 60 | 57 | 50 | 45 | 44 | 51 | 47 |
| 47 | 36 | 45 | 43 | 38 | 40 | 48 | 39 | 40 |
| 48 | 56 | 57 | 54 | 46 | 55 | 51 | 41 | 53 |
| 49 | 40 | 34 | 32 | 31 | 40 | 36 | 36 | 37 |
| 50 | 36 | 45 | 28 | 33 | 31 | 47 | 28 | 35 |
| 51 | 55 | 65 | 61 | 53 | 51 | 49 | 39 | 54 |
| 52 | 48 | 31 | 39 | 35 | 53 | 44 | 35 | 44 |
| 53 | 27 | 28 | 27 | 26 | 32 | 25 | 28 | 28 |
| 54 | 28 | 25 | 28 | 30 | 37 | 31 | 22 | 30 |
| 55 | 29 | 36 | 20 | 27 | 25 | 23 | 24 | 27 |
| 56 | 26 | 23 | 21 | 18 | 28 | 29 | 28 | 25 |
| 57 | 38 | 46 | 37 | 38 | 39 | 37 | 32 | 38 |
| 58 | 21 | 19 | 26 | 29 | 29 | 28 | 23 | 25 |

TABLE XLVIII

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER TEST ITEM: SEQUENTIAL TEST OF EDUCATIONAL PROGRESS, SCIENCE, GRADE 9
1969-70 BY COUNTY AND REGION

| Test Item | COUNTY Berkeley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|
| 1 | 83.5 | 81.0 | 80.7 | 40.6 | 81.1 | 83.7 | 87.3 | 79.3 |
| 2 | 83.3 | 79.1 | 76.9 | 82.7 | 73.7 | 76.6 | 81.0 | 79.1 |
| 3 | 68.5 | 55.7 | 60.8 | 63.3 | 62.4 | 61.7 | 73.8 | 64.4 |
| 4 | 51.7 | 44.9 | 52.8 | 52.5 | 48.0 | 52.5 | 48.4 | 50.2 |
| 5 | 70.1 | 62.7 | 70.3 | 71.9 | 61.7 | 74.5 | 73.8 | 68.2 |
| 6 | 81.0 | 74.1 | 71.2 | 71.2 | 72.5 | 72.3 | 73.8 | 75.2 |
| 7 | 59.8 | 53.8 | 55.2 | 50.4 | 53.8 | 58.9 | 57.9 | 56.3 |
| 8 | 41.7 | 57.9 | 50.9 | 16.5 | 45.5 | 64.5 | 68.3 | 46.9 |
| 9 | 41.1 | 44.3 | 44.3 | 39.6 | 42.0 | 48.2 | 30.2 | 41.7 |
| 10 | 37.3 | 25.3 | 33.0 | 27.3 | 37.4 | 35.5 | 36.5 | 34.8 |
| 11 | 93.8 | 81.0 | 85.5 | 67.6 | 66.4 | 85.1 | 88.1 | 81.8 |
| 12 | 64.1 | 60.8 | 56.6 | 46.8 | 62.8 | 62.4 | 55.6 | 60.5 |
| 13 | 53.1 | 44.3 | 46.7 | 43.2 | 47.3 | 41.1 | 50.8 | 48.2 |
| 14 | 50.4 | 51.3 | 48.1 | 43.9 | 51.5 | 46.1 | 49.2 | 49.5 |
| 15 | 32.9 | 36.7 | 29.2 | 20.9 | 36.7 | 34.0 | 23.0 | 32.2 |
| 16 | 80.1 | 76.6 | 77.8 | 60.4 | 73.0 | 78.0 | 87.3 | 76.6 |
| 17 | 41.8 | 40.5 | 41.0 | 41.0 | 34.4 | 34.8 | 35.7 | 38.7 |
| 18 | 78.6 | 69.0 | 75.9 | 51.8 | 74.8 | 79.4 | 68.3 | 73.7 |
| 19 | 51.1 | 46.8 | 50.5 | 51.1 | 52.9 | 60.9 | 57.9 | 52.4 |
| 20 | 47.8 | 47.5 | 45.8 | 40.3 | 46.2 | 51.1 | 60.3 | 47.7 |
| 21 | 43.0 | 43.0 | 34.0 | 32.4 | 46.4 | 44.0 | 48.4 | 42.4 |
| 22 | 18.9 | 19.0 | 17.0 | 14.4 | 26.1 | 18.4 | 23.8 | 20.4 |
| 23 | 40.2 | 31.0 | 32.5 | 32.4 | 31.4 | 27.0 | 42.9 | 34.8 |

TABLE XLVIII (CONT.)

| Test Item | Berkeley | Grant | Hampshire | Hardy | COUNTY Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|
| 24 | 35.5 | 34.8 | 23.1 | 26.6 | 29.8 | 37.6 | 29.4 | 32.7 |
| 25 | 52.2 | 46.2 | 43.5 | 42.4 | 48.5 | 56.0 | 55.6 | 49.5 |
| 26 | 48.5 | 37.3 | 42.9 | 36.7 | 42.5 | 43.3 | 41.3 | 43.5 |
| 27 | 67.3 | 60.8 | 61.3 | 51.8 | 61.4 | 55.3 | 69.8 | 62.6 |
| 28 | 33.2 | 34.8 | 37.8 | 25.9 | 38.1 | 30.5 | 28.6 | 34.0 |
| 29 | 32.3 | 25.3 | 35.8 | 31.7 | 34.4 | 30.5 | 35.7 | 32.4 |
| 30 | 50.0 | 46.8 | 46.7 | 45.3 | 52.0 | 49.6 | 50.0 | 49.4 |
| | | | | | PART II | | | |
| 1 | 89.4 | 84.2 | 81.1 | 69.1 | 92.1 | 85.8 | 88.9 | 86.7 |
| 2 | 66.8 | 57.0 | 59.0 | 58.3 | 66.3 | 59.6 | 54.8 | 62.8 |
| 3 | 44.3 | 32.9 | 39.6 | 30.9 | 45.3 | 46.8 | 41.3 | 41.9 |
| 4 | 29.0 | 15.2 | 50.9 | 23.7 | 30.7 | 31.2 | 14.3 | 29.5 |
| 5 | 40.2 | 39.2 | 45.3 | 29.5 | 43.9 | 51.8 | 47.6 | 42.2 |
| 6 | 64.7 | 55.7 | 63.7 | 49.6 | 65.1 | 79.9 | 62.7 | 63.8 |
| 7 | 63.6 | 62.7 | 60.8 | 53.2 | 62.6 | 64.5 | 61.1 | 62.0 |
| 8 | 45.5 | 48.7 | 42.5 | 47.5 | 43.6 | 48.2 | 57.1 | 46.2 |
| 9 | 28.8 | 29.7 | 29.2 | 18.7 | 27.5 | 27.7 | 25.4 | 30.7 |
| 10 | 21.6 | 28.5 | 24.1 | 20.9 | 30.5 | 24.1 | 21.4 | 22.4 |
| 11 | 65.6 | 46.8 | 57.1 | 51.1 | 53.1 | 59.6 | 62.7 | 58.0 |
| 12 | 44.8 | 41.1 | 46.2 | 37.4 | 43.4 | 44.0 | 46.8 | 43.8 |
| 13 | 55.5 | 39.9 | 55.7 | 33.1 | 43.2 | 48.9 | 65.1 | 49.5 |
| 14 | 54.3 | 44.3 | 48.1 | 49.6 | 52.4 | 44.7 | 57.9 | 51.3 |
| 15 | 77.3 | 55.1 | 68.9 | 60.4 | 67.0 | 72.3 | 65.0 | 6 9.2 |
| 16 | 45.5 | 42.4 | 41.5 | 37.4 | 41.3 | 54.6 | 44.4 | 43.7 |
| 17 | 68.9 | 53.2 | 58.0 | 50.4 | 69.5 | 66.0 | 69.0 | 63.5 |
| 18 | 19.7 | 25.3 | 22.6 | 25.2 | 24.0 | 20.6 | 36.5 | 23.3 |

TABLE XLVIII (CONT.)

| Test Item | Berkeley | Grant | Hampshire | Hardy | COUNTY Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|
| 19 | 69.4 | 64.6 | 41.2 | 51.8 | 56.8 | 63.1 | 74.6 | 61.0 |
| 20 | 57.6 | 49.4 | 48.6 | 38.8 | 54.5 | 58.9 | 54.8 | 53.5 |
| 21 | 43.0 | 25.9 | 28.8 | 23.0 | 31.4 | 25.5 | 35.7 | 33.5 |
| 22 | 54.1 | 52.5 | 49.5 | 37.4 | 49.4 | 46.8 | 54.7 | 50.4 |
| 23 | 35.1 | 25.3 | 28.3 | 32.0 | 32.1 | 42.6 | 36.5 | 33.1 |
| 24 | 53.0 | 40.5 | 48.1 | 40.3 | 46.9 | 50.4 | 44.4 | 48.0 |
| 25 | 36.6 | 47.5 | 43.9 | 33.1 | 41.6 | 41.1 | 46.8 | 40.5 |
| 26 | 58.0 | 48.7 | 59.4 | 43.9 | 66.1 | 73.0 | 63.5 | 59.8 |
| 27 | 42.1 | 44.3 | 41.3 | 41.0 | 47.1 | 46.8 | 50.0 | 44.3 |
| 28 | 72.2 | 62.7 | 68.4 | 54.0 | 72.1 | 73.0 | 69.8 | 69.3 |
| 29 | 78.0 | 67.1 | 71.8 | 56.1 | 76.7 | 77.3 | 69.0 | 73.6 |
| 30 | 42.0 | 37.3 | 45.3 | 45.3 | 47.3 | 51.1 | 56.3 | 45.3 |

TABLE XLIX

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER TEST ITEM: SEQUENTIAL TEST OF EDUCATIONAL PROGRESS, SCIENCE, GRADE 11 1969-70 BY COUNTY AND REGION

| Test Item | Berkley | Grant | Hampshire | COUNTY Hardy | Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|
| | | | | PART I | | | | |
| 1 | 58.1 | 49.6 | 57.1 | 52.0 | 53.6 | 53.7 | 58.9 | 54.4 |
| 2 | 35.9 | 41.9 | 22.2 | 28.4 | 30.7 | 51.2 | 40.2 | 33.9 |
| 3 | 68.4 | 60.7 | 60.6 | 63.5 | 58.7 | 53.7 | 57.0 | 60.1 |
| 4 | 49.6 | 50.4 | 36.4 | 45.9 | 44.5 | 48.8 | 51.4 | 45.7 |
| 5 | 74.4 | 75.2 | 62.3 | 70.9 | 72.0 | 71.5 | 65.4 | 70.4 |
| 6 | 53.0 | 52.1 | 47.5 | 61.5 | 50.1 | 52.8 | 42.1 | 45.3 |
| 7 | 34.2 | 23.9 | 30.2 | 32.4 | 32.5 | 41.5 | 32.7 | 29.5 |
| 8 | 62.4 | 72.6 | 64.8 | 67.6 | 60.0 | 70.7 | 71.0 | 65.3 |
| 9 | 24.8 | 38.5 | 30.7 | 37.8 | 34.9 | 35.8 | 35.5 | 34.2 |
| 10 | 24.0 | 28.2 | 27.8 | 27.7 | 24.0 | 27.6 | 24.3 | 26.9 |
| 11 | 43.3 | 39.3 | 27.8 | 45.9 | 45.3 | 47.2 | 37.4 | 41.6 |
| 12 | 12.8 | 12.0 | 17.3 | 12.8 | 13.9 | 15.4 | 16.8 | 14.4 |
| 13 | 28.2 | 36.8 | 29.6 | 33.1 | 31.5 | 44.7 | 30.8 | 32.0 |
| 14 | 44.4 | 26.5 | 26.5 | 28.4 | 35.2 | 30.9 | 32.7 | 31.8 |
| 15 | 32.5 | 29.1 | 24.7 | 24.3 | 30.4 | 35.0 | 34.6 | 28.8 |
| 16 | 49.7 | 53.8 | 46.3 | 46.6 | 48.3 | 52.8 | 51.4 | 49.3 |
| 17 | 39.3 | 41.9 | 29.0 | 38.5 | 41.3 | 39.8 | 43.0 | 39.1 |
| 18 | 22.2 | 26.5 | 22.2 | 24.3 | 22.4 | 13.8 | 16.8 | 21.6 |
| 19 | 63.2 | 61.5 | 51.9 | 70.3 | 57.6 | 65.0 | 55.1 | 60.0 |
| 20 | 39.3 | 36.8 | 40.7 | 41.9 | 34.1 | 50.4 | 47.7 | 35.0 |
| 21 | 53.0 | 47.9 | 47.5 | 62.2 | 49.6 | 57.0 | 58.9 | 52.8 |
| 22 | 42.7 | 36.8 | 35.2 | 41.9 | 45.3 | 45.5 | 48.6 | 42.6 |
| 23 | 45.3 | 41.0 | 35.8 | 45.9 | 41.1 | 42.3 | 45.8 | 42.0 |
| 24 | 6.0 | 6.8 | 8.6 | 10.1 | 8.0 | 8.9 | 10.3 | 07.5 |

TABLE XLIX (CONT.)

| Test Item | Berkley | Grant | Hampshire | COUNTY Hardy | Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|
| 25 | 70.1 | 61.5 | 51.9 | 70.9 | 63.7 | 71.5 | 69.2 | 64.7 |
| 26 | 29.9 | 34.2 | 29.6 | 34.5 | 29.9 | 30.9 | 24.3 | 29.4 |
| 27 | 32.5 | 45.3 | 35.2 | 47.3 | 40.0 | 43.1 | 38.3 | 40.2 |
| 28 | 16.2 | 15.4 | 14.8 | 18.2 | 14.7 | 12.2 | 18.7 | 15.5 |
| 29 | 25.6 | 35.4 | 27.2 | 25.7 | 25.3 | 17.9 | 19.6 | 18.4 |
| 30 | 24.8 | 34.2 | 27.2 | 25.0 | 24.5 | 31.7 | 34.6 | 26.7 |
| | | | | PART II | | | | |
| 1 | 27.4 | 33.3 | 34.6 | 39.2 | 36.8 | 44.7 | 38.3 | 35.0 |
| 2 | 56.4 | 64.1 | 59.3 | 73.0 | 59.7 | 58.5 | 61.7 | 61.5 |
| 3 | 44.4 | 43.6 | 34.0 | 45.9 | 47.2 | 44.7 | 42.1 | 43.8 |
| 4 | 59.0 | 65.0 | 57.4 | 56.1 | 61.1 | 69.1 | 78.5 | 62.8 |
| 5 | 29.1 | 43.6 | 29.0 | 22.3 | 30.9 | 42.3 | 36.4 | 29.1 |
| 6 | 24.8 | 31.6 | 21.6 | 18.9 | 23.5 | 22.8 | 43.9 | 25.4 |
| 7 | 74.4 | 73.5 | 74.1 | 81.1 | 80.3 | 81.3 | 87.9 | 79.0 |
| 8 | 51.3 | 57.3 | 46.9 | 60.1 | 49.1 | 59.3 | 70.1 | 54.3 |
| 9 | 72.6 | 57.3 | 54.3 | 66.2 | 61.1 | 52.8 | 63.5 | 60.9 |
| 10 | 61.5 | 45.3 | 48.1 | 53.4 | 52.5 | 55.3 | 50.5 | 52.3 |
| 11 | 54.7 | 56.4 | 53.7 | 54.7 | 42.7 | 54.5 | 60.7 | 51.7 |
| 12 | 42.7 | 45.3 | 35.2 | 41.2 | 37.6 | 42.3 | 47.7 | 40.5 |
| 13 | 44.4 | 54.7 | 50.0 | 62.8 | 55.2 | 57.7 | 59.8 | 55.0 |
| 14 | 67.5 | 58.1 | 57.4 | 70.3 | 59.2 | 66.7 | 73.8 | 63.3 |
| 15 | 47.9 | 45.3 | 42.0 | 48.6 | 39.7 | 40.7 | 50.5 | 43.7 |
| 16 | 49.6 | 34.2 | 35.2. | 30.4 | 42.4 | 26.8 | 40.2 | 37.9 |
| 17 | 12.0 | 11.1 | 13.0 | 7.4 | 12.8 | 8.1 | 8.4 | 11.3 |
| 18 | 48.7 | 59.0 | 54.9 | 43.9 | 49.9 | 55.3 | 60.7 | 52.2 |
| 19 | 32.5 | 34.2 | 26.5 | 33.8 | 53.1 | 27.6 | 31.8 | 38.1 |
| 20 | 49.6 | 49.6 | 43.2 | 49.3 | 52.3 | 52.8 | 51.4 | 50.0 |

TABLE XLIX (CONT.)

| Test Item | Berkley | Grant | Hampshire | COUNTY Hardy | Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|
| 21 | 25.6 | 25.6 | 32.7 | 29.7 | 34.7 | 36.6 | 29.9 | 31.7 |
| 22 | 31.6 | 37.6 | 26.5 | 40.5 | 30.9 | 42.3 | 43.0 | 34.6 |
| 23 | 42.7 | 50.4 | 37.0 | 49.3 | 45.1 | 51.2 | 36.4 | 47.6 |
| 24 | 59.0 | 53.0 | 47.5 | 50.7 | 56.0 | 61.8 | 57.0 | 53.5 |
| 25 | 56.4 | 46.2 | 45.1 | 59.5 | 58.7 | 55.3 | 59.8 | 50.6 |
| 26 | 42.7 | 41.0 | 40.1 | 45.3 | 37.9 | 47.2 | 45.8 | 41.7 |
| 27 | 29.1 | 20.5 | 34.6 | 29.7 | 26.9 | 34.1 | 24.3 | 28.4 |
| 28 | 22.2 | 23.1 | 16.0 | 24.3 | 19.7 | 22.8 | 28.0 | 21.8 |
| 29 | 34.2 | 34.2 | 37.7 | 35.1 | 32.8 | 40.7 | 36.4 | 32.4 |
| 30 | 35.9 | 43.6 | 46.9 | 50.7 | 43.2 | 51.2 | 44.0 | 44.9 |

TABLE L

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER TEST ITEM: STANFORD ACHIEVEMENT TEST, LANGUAGE, GRADE 6
1969-70 BY COUNTY AND REGION

| | County | | | | | | | Region |
|---|---|---|---|---|---|---|---|---|
| Test Item | Berkeley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | |
| 1 | 92 | 93 | 91 | 86 | 93 | 94 | 93 | 92 |
| 2 | 92 | 94 | 84 | 89 | 89 | 86 | 89 | 90 |
| 3 | 83 | 83 | 79 | 76 | 84 | 76 | 83 | 81 |
| 4 | 80 | 78 | 70 | 74 | 76 | 78 | 78 | 77 |
| 5 | 77 | 62 | 56 | 53 | 66 | 67 | 55 | 66 |
| 6 | 81 | 68 | 68 | 67 | 71 | 75 | 69 | 74 |
| 7 | 82 | 85 | 79 | 83 | 81 | 79 | 74 | 81 |
| 8 | 79 | 70 | 69 | 65 | 71 | 71 | 68 | 73 |
| 9 | 89 | 86 | 80 | 77 | 81 | 84 | 78 | 84 |
| 10 | 85 | 90 | 83 | 83 | 86 | 86 | 87 | 85 |
| 11 | 75 | 71 | 66 | 63 | 61 | 75 | 63 | 69 |
| 12 | 78 | 75 | 74 | 76 | 71 | 74 | 76 | 75 |
| 13 | 73 | 70 | 69 | 70 | 72 | 68 | 69 | 71 |
| 14 | 79 | 88 | 72 | 79 | 77 | 80 | 74 | 78 |
| 15 | 70 | 69 | 61 | 64 | 59 | 62 | 63 | 65 |
| 16 | 68 | 70 | 59 | 55 | 67 | 55 | 68 | 65 |
| 17 | 66 | 48 | 64 | 54 | 62 | 63 | 47 | 61 |
| 18 | 65 | 69 | 62 | 64 | 57 | 61 | 67 | 63 |
| 19 | 55 | 47 | 52 | 40 | 50 | 47 | 50 | 50 |
| 20 | 52 | 57 | 43 | 58 | 55 | 59 | 50 | 53 |

TABLE L (CONT.)

| Test Item | County | | | | | | | Region |
|---|---|---|---|---|---|---|---|---|
| | Berkeley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | |
| 21 | 35 | 60 | 48 | 49 | 42 | 41 | 53 | 43 |
| 22 | 50 | 44 | 28 | 37 | 41 | 37 | 41 | 42 |
| 23 | 39 | 60 | 39 | 53 | 38 | 27 | 45 | 41 |
| 24 | 31 | 23 | 34 | 36 | 29 | 35 | 32 | 31 |
| 25 | 42 | 31 | 33 | 30 | 43 | 51 | 33 | 40 |
| 26 | 42 | 46 | 38 | 33 | 33 | 37 | 44 | 39 |
| 27 | 28 | 41 | 40 | 16 | 29 | 33 | 40 | 31 |
| 28 | 41 | 54 | 33 | 46 | 39 | 34 | 42 | 41 |
| 29 | 31 | 25 | 23 | 24 | 22 | 22 | 37 | 26 |
| 30 | 42 | 44 | 16 | 26 | 31 | 30 | 49 | 35 |
| 31 | 25 | 35 | 28 | 26 | 29 | 24 | 35 | 28 |
| 32 | 24 | 25 | 23 | 26 | 21 | 23 | 37 | 24 |
| 33 | 34 | 31 | 33 | 35 | 41 | 35 | 36 | 36 |
| 34 | 15 | 10 | 24 | 20 | 18 | 24 | 15 | 18 |
| 35 | 28 | 28 | 22 | 24 | 28 | 21 | 28 | 26 |
| 36 | 15 | 19 | 9 | 18 | 18 | 15 | 14 | 16 |
| 37 | 13 | 10 | 35 | 14 | 7 | 22 | 13 | 15 |
| 38 | 13 | 28 | 9 | 17 | 13 | 8 | 22 | 14 |
| 39 | 71 | 88 | 78 | 78 | 78 | 80 | 60 | 76 |
| 40 | 65 | 57 | 52 | 55 | 54 | 58 | 45 | 58 |
| 41 | 30 | 33 | 39 | 34 | 29 | 19 | 26 | 30 |
| 42 | 59 | 74 | 62 | 58 | 63 | 63 | 57 | 62 |

TABLE L (CONT.)

| Test Item | County | | | | | | | Region |
|---|---|---|---|---|---|---|---|---|
| | Berkeley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | |
| 43 | 70 | 60 | 77 | 71 | 65 | 82 | 67 | 70 |
| 44 | 61 | 64 | 51 | 57 | 56 | 62 | 60 | 59 |
| 45 | 85 | 85 | 79 | 85 | 76 | 83 | 69 | 81 |
| 46 | 75 | 67 | 78 | 82 | 71 | 74 | 60 | 73 |
| 47 | 58 | 56 | 62 | 58 | 52 | 63 | 50 | 57 |
| 48 | 57 | 48 | 57 | 56 | 54 | 58 | 44 | 55 |
| 49 | 50 | 62 | 71 | 52 | 58 | 72 | 57 | 58 |
| 50 | 54 | 55 | 51 | 55 | 52 | 56 | 39 | 53 |
| 51 | 52 | 50 | 61 | 58 | 45 | 48 | 49 | 51 |
| 52 | 66 | 78 | 60 | 68 | 71 | 72 | 67 | 68 |
| 53 | 78 | 80 | 77 | 80 | 78 | 82 | 74 | 78 |
| 54 | 49 | 55 | 47 | 50 | 51 | 43 | 37 | 48 |
| 55 | 68 | 77 | 63 | 64 | 68 | 72 | 65 | 68 |
| 56 | 42 | 44 | 44 | 42 | 44 | 43 | 33 | 42 |
| 57 | 52 | 51 | 61 | 72 | 49 | 59 | 64 | 55 |
| 58 | 49 | 47 | 59 | 68 | 58 | 56 | 64 | 56 |
| 59 | 97 | 96 | 93 | 90 | 94 | 92 | 93 | 94 |
| 60 | 65 | 59 | 75 | 63 | 67 | 54 | 64 | 65 |
| 61 | 67 | 65 | 79 | 67 | 70 | 63 | 70 | 69 |
| 62 | 95 | 92 | 90 | 85 | 90 | 89 | 87 | 89 |
| 63 | 93 | 91 | 87 | 79 | 89 | 86 | 85 | 89 |
| 64 | 89 | 85 | 92 | 89 | 83 | 92 | 79 | 87 |

TABLE L (CONT.)

| Test Item | County | | | | | | | Region |
|---|---|---|---|---|---|---|---|---|
| | Berkeley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | |
| 65 | 62 | 52 | 65 | 63 | 56 | 49 | 49 | 58 |
| 66 | 90 | 84 | 86 | 80 | 86 | 89 | 78 | 86 |
| 67 | 87 | 81 | 82 | 78 | 84 | 87 | 74 | 84 |
| 68 | 88 | 87 | 90 | 87 | 88 | 90 | 80 | 88 |
| 69 | 96 | 98 | 93 | 94 | 96 | 97 | 94 | 96 |
| 70 | 97 | 97 | 96 | 94 | 96 | 97 | 97 | 93 |
| 71 | 86 | 96 | 86 | 83 | 85 | 88 | 83 | 86 |
| 72 | 46 | 24 | 37 | 40 | 48 | 32 | 34 | 41 |
| 73 | 83 | 85 | 87 | 80 | 83 | 84 | 79 | 83 |
| 7 | 7 | 8 | 14 | 9 | 10 | 5 | 8 | 9 |
| 75 | 96 | 96 | 94 | 95 | 95 | 95 | 94 | 95 |
| 76 | 91 | 90 | 94 | 90 | 88 | 89 | 91 | 90 |
| 77 | 79 | 70 | 78 | 76 | 77 | 71 | 68 | 76 |
| 78 | 82 | 80 | 86 | 86 | 83 | 82 | 85 | 83 |
| 79 | 85 | 83 | 86 | 88 | 83 | 85 | 79 | 84 |
| 80 | 97 | 97 | 97 | 96 | 94 | 96 | 91 | 96 |
| 81 | 90 | 88 | 85 | 77 | 84 | 90 | 87 | 87 |
| 82 | 61 | 65 | 69 | 67 | 63 | 70 | 63 | 64 |
| 83 | 91 | 85 | 92 | 91 | 93 | 93 | 84 | 91 |
| 84 | 59 | 61 | 58 | 53 | 60 | 57 | 58 | 58 |
| 85 | 87 | 80 | 86 | 82 | 80 | 90 | 81 | 84 |
| 86 | 95 | 96 | 92 | 88 | 93 | 93 | 93 | 93 |

TABLE L (CONT.)

| Test Item | County | | | | | | | Region |
|---|---|---|---|---|---|---|---|---|
| | Berkeley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | |
| 87 | 90 | 93 | 87 | 85 | 88 | 91 | 84 | 89 |
| 88 | 77 | 77 | 83 | 81 | 76 | 74 | 74 | 77 |
| 89 | 89 | 94 | 84 | 81 | 88 | 86 | 91 | 88 |
| 90 | 93 | 93 | 94 | 87 | 95 | 92 | 93 | 93 |
| 91 | 75 | 72 | 87 | 82 | 76 | 86 | 79 | 78 |
| 92 | 57 | 56 | 46 | 45 | 56 | 58 | 48 | 54 |
| 93 | 81 | 81 | 82 | 82 | 77 | 79 | 72 | 80 |
| 94 | 65 | 69 | 66 | 71 | 62 | 61 | 60 | 65 |
| 95 | 61 | 66 | 67 | 58 | 60 | 58 | 49 | 61 |
| 96 | 32 | 27 | 30 | 39 | 31 | 23 | 36 | 31 |
| 97 | 51 | 56 | 50 | 46 | 48 | 44 | 46 | 49 |
| 98 | 32 | 34 | 34 | 20 | 27 | 30 | 21 | 29 |
| 99 | 51 | 60 | 49 | 55 | 52 | 49 | 40 | 51 |
| 100 | 39 | 40 | 43 | 40 | 44 | 44 | 40 | 41 |
| 101 | 51 | 64 | 51 | 52 | 50 | 48 | 46 | 51 |
| 102 | 52 | 58 | 46 | 38 | 46 | 43 | 46 | 48 |
| 103 | 69 | 70 | 64 | 63 | 65 | 63 | 55 | 66 |
| 104 | 38 | 40 | 43 | 41 | 43 | 44 | 31 | 40 |
| 105 | 40 | 36 | 36 | 38 | 33 | 34 | 34 | 37 |
| 106 | 40 | 29 | 33 | 36 | 40 | 36 | 36 | 37 |
| 107 | 67 | 64 | 64 | 68 | 66 | 64 | 61 | 66 |
| 108 | 57 | 58 | 59 | 61 | 52 | 65 | 53 | 57 |

TABLE L (CONT.)

| Test Item | County | | | | | | | Region |
|---|---|---|---|---|---|---|---|---|
| | Berkeley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | |
| 109 | 77 | 85 | 75 | 82 | 72 | 70 | 72 | 76 |
| 110 | 72 | 80 | 79 | 81 | 75 | 77 | 57 | 74 |
| 111 | 63 | 56 | 49 | 55 | 52 | 45 | 49 | 55 |
| 112 | 45 | 48 | 46 | 51 | 47 | 37 | 37 | 45 |
| 113 | 56 | 51 | 50 | 47 | 52 | 34 | 42 | 50 |
| 114 | 65 | 71 | 61 | 60 | 60 | 52 | 54 | 62 |
| 115 | 51 | 30 | 42 | 37 | 51 | 31 | 37 | 44 |
| 116 | 54 | 44 | 50 | 43 | 56 | 44 | 42 | 50 |
| 117 | 94 | 96 | 94 | 92 | 89 | 94 | 87 | 92 |
| 118 | 58 | 62 | 61 | 50 | 54 | 57 | 54 | [illegible] |
| 119 | 37 | 33 | 41 | 35 | 30 | 39 | 34 | 35 |
| 120 | 74 | 75 | 75 | 74 | 72 | 78 | 64 | 73 |
| 121 | 88 | 91 | 83 | 85 | 80 | 89 | 72 | 85 |
| 122 | 41 | 49 | 38 | 43 | 38 | 52 | 50 | 43 |
| 123 | 66 | 63 | 65 | 68 | 64 | 60 | 53 | 64 |
| 124 | 85 | 91 | 86 | 88 | 83 | 89 | 73 | 85 |
| 125 | 68 | 62 | 63 | 65 | 59 | 66 | 57 | 64 |
| 126 | 57 | 57 | 53 | 59 | 51 | 58 | 42 | 55 |
| 127 | 39 | 35 | 48 | 39 | 41 | 48 | 38 | 41 |
| 128 | 66 | 69 | 62 | 70 | 59 | 71 | 54 | 64 |
| 129 | 29 | 30 | 25 | 28 | 31 | 36 | 36 | 30 |
| 130 | 69 | 73 | 71 | 69 | 71 | 72 | 69 | 70 |

TABLE L (CONT.)

| Test Item | County | | | | | | | Region |
|---|---|---|---|---|---|---|---|---|
| | Berkeley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | |
| 131 | 55 | 61 | 62 | 60 | 57 | 69 | 55 | 59 |
| 132 | 72 | 73 | 73 | 70 | 67 | 78 | 66 | 71 |
| 133 | 59 | 59 | 62 | 53 | 49 | 63 | 55 | 57 |
| 134 | 50 | 51 | 46 | 37 | 46 | 48 | 49 | 47 |

TABLE LI

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER TEST ITEM: STANFORD ACHIEVEMENT TEST, PARAGRAPH MEANING, GRADE 6
1969-70 BY COUNTY AND REGION

| | County | | | | | | | Region |
|---|---|---|---|---|---|---|---|---|
| Test Item | Berkeley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | |
| 1 | 76 | 80 | 74 | 70 | 69 | 77 | 90 | 75 |
| 2 | 87 | 86 | 76 | 77 | 80 | 79 | 79 | 82 |
| 3 | 63 | 73 | 65 | 63 | 67 | 69 | 60 | 65 |
| 4 | 91 | 94 | 81 | 90 | 88 | 88 | 86 | 89 |
| 5 | 86 | 81 | 74 | 79 | 82 | 77 | 80 | 81 |
| 6 | 69 | 67 | 64 | 69 | 70 | 63 | 69 | 68 |
| 7 | 75 | 80 | 60 | 76 | 75 | 74 | 71 | 74 |
| 8 | 58 | 57 | 53 | 57 | 61 | 54 | 52 | 57 |
| 9 | 78 | 76 | 75 | 72 | 73 | 71 | 73 | 74 |
| 10 | 86 | 89 | 81 | 82 | 83 | 83 | 79 | 84 |
| 11 | 79 | 81 | 75 | 77 | 78 | 81 | 73 | 78 |
| 12 | 43 | 44 | 46 | 53 | 49 | 52 | 36 | 46 |
| 13 | 88 | 90 | 86 | 88 | 81 | 84 | 85 | 86 |
| 14 | 75 | 76 | 68 | 68 | 66 | 75 | 72 | 72 |
| 15 | 62 | 65 | 55 | 52 | 60 | 54 | 63 | 59 |
| 16 | 63 | 67 | 62 | 65 | 60 | 64 | 60 | 63 |
| 17 | 69 | 66 | 67 | 64 | 64 | 66 | 63 | 66 |
| 18 | 77 | 80 | 68 | 71 | 74 | 76 | 79 | 75 |
| 19 | 38 | 33 | 34 | 31 | 33 | 34 | 31 | 35 |
| 20 | 72 | 71 | 66 | 71 | 69 | 73 | 66 | 70 |

TABLE LI (CONT.)

| Test Item | County | | | | | | | Region |
|---|---|---|---|---|---|---|---|---|
| | Berkeley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | |
| 21 | 37 | 37 | 35 | 30 | 38 | 31 | 36 | 36 |
| 22 | 54 | 53 | 50 | 52 | 57 | 57 | 48 | 54 |
| 23 | 56 | 58 | 58 | 54 | 52 | 55 | 59 | 55 |
| 24 | 66 | 54 | 63 | 59 | 65 | 66 | 65 | 64 |
| 25 | 68 | 70 | 67 | 73 | 70 | 72 | 62 | 69 |
| 26 | 64 | 68 | 59 | 57 | 61 | 58 | 52 | 61 |
| 27 | 48 | 55 | 43 | 49 | 48 | 57 | 44 | 49 |
| 28 | 51 | 49 | 47 | 47 | 54 | 54 | 49 | 51 |
| 29 | 69 | 51 | 53 | 67 | 59 | 78 | 70 | 64 |
| 30 | 36 | 21 | 29 | 27 | 35 | 26 | 31 | 32 |
| 31 | 61 | 61 | 60 | 59 | 64 | 69 | 58 | 62 |
| 32 | 57 | 59 | 52 | 59 | 58 | 63 | 53 | 57 |
| 33 | 46 | 56 | 45 | 49 | 41 | 55 | 47 | 47 |
| 34 | 51 | 43 | 43 | 48 | 51 | 47 | 41 | 48 |
| 35 | 50 | 51 | 40 | 40 | 42 | 31 | 36 | 44 |
| 36 | 69 | 75 | 64 | 74 | 70 | 67 | 61 | 69 |
| 37 | 63 | 54 | 59 | 59 | 65 | 56 | 52 | 60 |
| 38 | 39 | 42 | 42 | 42 | 44 | 44 | 39 | 41 |
| 39 | 51 | 51 | 49 | 59 | 52 | 49 | 48 | 51 |
| 40 | 43 | 45 | 39 | 42 | 43 | 38 | 42 | 42 |
| 41 | 50 | 54 | 55 | 59 | 52 | 57 | 54 | 53 |
| 42 | 57 | 55 | 47 | 49 | 52 | 47 | 53 | 53 |

TABLE LI (CONT.)

| Test Item | County | | | | | | | Region |
|---|---|---|---|---|---|---|---|---|
| | Berkeley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | |
| 43 | 37 | 29 | 34 | 42 | 41 | 36 | 27 | 37 |
| 44 | 56 | 57 | 58 | 57 | 58 | 62 | 50 | 57 |
| 45 | 58 | 52 | 63 | 60 | 65 | 65 | 50 | 60 |
| 46 | 43 | 46 | 50 | 53 | 59 | 48 | 39 | 49 |
| 47 | 53 | 52 | 50 | 55 | 59 | 46 | 46 | 53 |
| 48 | 42 | 43 | 42 | 48 | 55 | 46 | 36 | 46 |
| 49 | 56 | 57 | 56 | 57 | 54 | 52 | 46 | 55 |
| 50 | 48 | 49 | 43 | 57 | 49 | 44 | 45 | 48 |
| 51 | 42 | 41 | 33 | 49 | 45 | 36 | 42 | 42 |
| 52 | 52 | 60 | 49 | 55 | 55 | 57 | 45 | 53 |
| 53 | 29 | 38 | 28 | 34 | 33 | 29 | 30 | 31 |
| 54 | 47 | 57 | 55 | 47 | 52 | 57 | 40 | 50 |
| 55 | 33 | 44 | 35 | 29 | 33 | 38 | 36 | 34 |
| 56 | 23 | 17 | 26 | 30 | 27 | 20 | 17 | 24 |
| 57 | 27 | 33 | 24 | 27 | 28 | 22 | 23 | 27 |
| 58 | 49 | 40 | 49 | 48 | 51 | 42 | 45 | 48 |
| 59 | 33 | 36 | 28 | 36 | 33 | 36 | 31 | 33 |
| 60 | 41 | 36 | 39 | 45 | 39 | 39 | 31 | 40 |
| 61 | 33 | 31 | 28 | 36 | 39 | 34 | 31 | 34 |
| 62 | 17 | 17 | 18 | 20 | 18 | 12 | 21 | 17 |
| 63 | 28 | 28 | 27 | 27 | 31 | 32 | 36 | 29 |
| 64 | 37 | 31 | 34 | 39 | 39 | 35 | 28 | 36 |

TABLE LII

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER TEST ITEM: STANFORD ACHIEVEMENT TEST, SPELLING, GRADE 6 1969-70 BY COUNTY AND REGION

| | County | | | | | | | Region |
|---|---|---|---|---|---|---|---|---|
| Test Item | Berkeley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | |
| 1 | 68 | 66 | 69 | 61 | 71 | 68 | 57 | 67 |
| 2 | 95 | 98 | 87 | 92 | 92 | 91 | 88 | 93 |
| 3 | 88 | 88 | 85 | 89 | 87 | 84 | 82 | 87 |
| 4 | 91 | 88 | 91 | 86 | 92 | 88 | 83 | 90 |
| 5 | 92 | 90 | 93 | 86 | 88 | 90 | 84 | 90 |
| 6 | 81 | 84 | 83 | 75 | 80 | 76 | 74 | 80 |
| 7 | 85 | 81 | 83 | 82 | 84 | 82 | 74 | 83 |
| 8 | 84 | 86 | 86 | 80 | 80 | 85 | 79 | 83 |
| 9 | 86 | 86 | 88 | 86 | 84 | 83 | 76 | 85 |
| 10 | 58 | 56 | 62 | 70 | 62 | 61 | 56 | 60 |
| 11 | 79 | 75 | 71 | 71 | 74 | 71 | 74 | 75 |
| 12 | 73 | 82 | 90 | 62 | 81 | 85 | 75 | 78 |
| 13 | 79 | 65 | 73 | 74 | 68 | 67 | 72 | 73 |
| 14 | 76 | 85 | 82 | 79 | 75 | 76 | 75 | 77 |
| 15 | 80 | 83 | 81 | 73 | 81 | 75 | 70 | 79 |
| 16 | 79 | 80 | 78 | 80 | 72 | 76 | 74 | 77 |
| 17 | 78 | 70 | 74 | 75 | 73 | 66 | 66 | 74 |
| 18 | 80 | 73 | 70 | 68 | 75 | 78 | 71 | 75 |
| 19 | 79 | 77 | 71 | 74 | 69 | 70 | 67 | 74 |
| 20 | 61 | 71 | 63 | 72 | 72 | 64 | 54 | 65 |

TABLE LII (CONT.)

| Test Item | County | | | | | | | Region |
|---|---|---|---|---|---|---|---|---|
| | Berkeley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | |
| 21 | 59 | 59 | 61 | 58 | 56 | 61 | 56 | 58 |
| 22 | 54 | 65 | 52 | 48 | 57 | 49 | 42 | 52 |
| 23 | 72 | 71 | 61 | 61 | 61 | 55 | 65 | 65 |
| 24 | 67 | 59 | 62 | 70 | 61 | 72 | 51 | 64 |
| 25 | 69 | 69 | 65 | 71 | 71 | 54 | 60 | 67 |
| 26 | 54 | 60 | 48 | 52 | 57 | 44 | 42 | 53 |
| 27 | 40 | 51 | 42 | 49 | 47 | 46 | 42 | 44 |
| 28 | 49 | 46 | 52 | 59 | 53 | 55 | 49 | 51 |
| 29 | 66 | 50 | 59 | 43 | 48 | 64 | 49 | 57 |
| 30 | 47 | 52 | 42 | 42 | 48 | 37 | 40 | 45 |
| 31 | 56 | 56 | 52 | 46 | 51 | 45 | 41 | 52 |
| 32 | 48 | 54 | 50 | 45 | 44 | 37 | 40 | 46 |
| 33 | 56 | 59 | 37 | 54 | 55 | 48 | 60 | 53 |
| 34 | 39 | 36 | 44 | 47 | 45 | 37 | 42 | 41 |
| 35 | 54 | 59 | 49 | 52 | 56 | 46 | 47 | 53 |
| 36 | 44 | 40 | 58 | 40 | 42 | 45 | 61 | 46 |
| 37 | 35 | 35 | 47 | 36 | 36 | 42 | 39 | 38 |
| 38 | 38 | 38 | 36 | 27 | 46 | 37 | 35 | 38 |
| 39 | 48 | 62 | 48 | 48 | 48 | 34 | 36 | 47 |
| 40 | 52 | 40 | 45 | 33 | 48 | 38 | 40 | 46 |
| 41 | 40 | 44 | 43 | 46 | 45 | 45 | 42 | 43 |
| 42 | 35 | 39 | 47 | 29 | 40 | 37 | 40 | 45 |

TABLE LII (CONT.)

| Test Item | County | | | | | | | Region |
|---|---|---|---|---|---|---|---|---|
| | Berkeley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | |
| 43 | 39 | 36 | 47 | 51 | 45 | 46 | 43 | 43 |
| 44 | 24 | 27 | 26 | 27 | 21 | 20 | 17 | 23 |
| 45 | 28 | 28 | 28 | 32 | 36 | 34 | 33 | 31 |
| 46 | 34 | 35 | 33 | 34 | 39 | 34 | 26 | 35 |
| 47 | 38 | 29 | 38 | 43 | 39 | 35 | 42 | 38 |
| 48 | 49 | 38 | 50 | 54 | 45 | 56 | 45 | 48 |
| 49 | 41 | 38 | 33 | 42 | 42 | 38 | 33 | 39 |
| 50 | 27 | 34 | 30 | 24 | 22 | 21 | 24 | 26 |
| 51 | 23 | 28 | 23 | 32 | 25 | 28 | 27 | 25 |
| 52 | 23 | 23 | 19 | 20 | 20 | 17 | 19 | 21 |
| 53 | 29 | 35 | 25 | 32 | 32 | 34 | 21 | 30 |
| 54 | 19 | 22 | 19 | 19 | 20 | 25 | 15 | 20 |
| 55 | 16 | 15 | 18 | 14 | 23 | 30 | 9 | 18 |
| 56 | 37 | 38 | 31 | 31 | 34 | 37 | 31 | 35 |

TABLE LIII

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER TEST ITEM: STANFORD ACHIEVEMENT TEST, WORD MEANING, GRADE 6
1969-70 BY COUNTY AND REGION

| | County | | | | | | | Region |
|---|---|---|---|---|---|---|---|---|
| Test Item | Berkeley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | |
| 1 | 85 | 87 | 79 | 83 | 80 | 84 | 93 | 84 |
| 2 | 92 | 88 | 84 | 79 | 86 | 84 | 86 | 87 |
| 3 | 84 | 82 | 76 | 82 | 84 | 82 | 78 | 87 |
| 4 | 91 | 92 | 88 | 84 | 88 | 85 | 82 | 88 |
| 5 | 69 | 80 | 64 | 63 | 78 | 77 | 56 | 71 |
| 6 | 84 | 91 | 82 | 86 | 83 | 83 | 83 | 84 |
| 7 | 68 | 77 | 68 | 66 | 71 | 69 | 60 | 69 |
| 8 | 61 | 65 | 75 | 74 | 70 | 65 | 74 | 67 |
| 9 | 76 | 75 | 87 | 80 | 85 | 54 | 85 | 85 |
| 10 | 86 | 77 | 82 | 77 | 85 | 86 | 84 | 84 |
| 11 | 68 | 63 | 59 | 46 | 63 | 58 | 55 | 62 |
| 12 | 62 | 65 | 62 | 57 | 62 | 63 | 61 | 62 |
| 13 | 57 | 54 | 49 | 60 | 57 | 54 | 50 | 55 |
| 14 | 55 | 54 | 45 | 52 | 52 | 46 | 61 | 52 |
| 15 | 47 | 48 | 45 | 53 | 56 | 61 | 55 | 51 |
| 16 | 54 | 57 | 55 | 58 | 52 | 53 | 54 | 54 |
| 17 | 52 | 47 | 55 | 39 | 49 | 43 | 39 | 48 |
| 18 | 56 | 56 | 50 | 55 | 58 | 49 | 45 | 54 |
| 19 | 46 | 47 | 36 | 47 | 44 | 42 | 35 | 44 |
| 20 | 42 | 31 | 21 | 36 | 37 | 25 | 22 | 34 |

TABLE LIII (CONT.)

| Test Item | County | | | | | | | Region |
|---|---|---|---|---|---|---|---|---|
| | Berkeley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | |
| 21 | 71 | 65 | 58 | 60 | 60 | 67 | 46 | 64 |
| 22 | 66 | 73 | 74 | 65 | 72 | 74 | 49 | 68 |
| 23 | 48 | 49 | 62 | 53 | 54 | 46 | 43 | 51 |
| 24 | 43 | 38 | 48 | 42 | 41 | 41 | 40 | 42 |
| 25 | 45 | 40 | 36 | 43 | 43 | 32 | 36 | 41 |
| 26 | 60 | 52 | 52 | 51 | 56 | 52 | 43 | 55 |
| 27 | 53 | 51 | 50 | 48 | 50 | 58 | 41 | 51 |
| 28 | 44 | 33 | 46 | 32 | 39 | 55 | 26 | 41 |
| 29 | 47 | 46 | 56 | 61 | 60 | 59 | 34 | 52 |
| 30 | 35 | 31 | 40 | 38 | 38 | 33 | 34 | 36 |
| 31 | 50 | 50 | 43 | 48 | 55 | 49 | 45 | 50 |
| 32 | 46 | 41 | 35 | 40 | 46 | 37 | 40 | 43 |
| 33 | 36 | 39 | 35 | 33 | 33 | 24 | 38 | 34 |
| 34 | 27 | 22 | 31 | 30 | 30 | 23 | 22 | 27 |
| 35 | 61 | 24 | 30 | 18 | 24 | 15 | 17 | 35 |
| 36 | 35 | 28 | 30 | 29 | 28 | 28 | 26 | 30 |
| 37 | 42 | 41 | 37 | 38 | 40 | 37 | 35 | 40 |
| 38 | 48 | 49 | 53 | 56 | 54 | 48 | 27 | 49 |
| 39 | 28 | 17 | 27 | 35 | 31 | 36 | 31 | 29 |
| 40 | 36 | 45 | 43 | 40 | 34 | 34 | 29 | 37 |
| 41 | 31 | 28 | 19 | 31 | 33 | 26 | 22 | 29 |
| 42 | 33 | 23 | 29 | 27 | 32 | 28 | 27 | 30 |

TABLE LIII (CONT.)

| Test Item | County | | | | | | | Region |
|---|---|---|---|---|---|---|---|---|
| | Berkeley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | |
| 43 | 18 | 18 | 16 | 19 | 22 | 16 | 14 | 18 |
| 44 | 25 | 22 | 22 | 23 | 27 | 25 | 26 | 25 |
| 45 | 16 | 23 | 15 | 19 | 28 | 18 | 17 | 20 |
| 46 | 20 | 19 | 18 | 13 | 26 | 18 | 10 | 20 |
| 47 | 10 | 11 | 12 | 15 | 13 | 10 | 9 | 11 |
| 48 | 10 | 11 | 7 | 14 | 15 | 10 | 12 | 11 |

TABLE LIV

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER TEST ITEM: SEQUENTIAL TEST OF EDUCATIONAL PROGRESS, READING, GRADE 9
1969-70 BY COUNTY AND REGION

| Test Item | Berkeley | Grant | Hampshire | Hardy | COUNTY Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|
| | | | | | PART I | | | |
| 1 | 79.8 | 72.2 | 78.9 | 74.1 | 69.7 | 80.4 | 82.4 | 76.3 |
| 2 | 30.8 | 65.2 | 73.5 | 79.9 | 71.8 | 77.9 | 80.0 | 60.1 |
| 3 | 92.0 | 81.0 | 92.8 | 82.0 | 86.8 | 85.5 | 84.8 | 88.0 |
| 4 | 81.3 | 75.3 | 77.3 | 76.3 | 75.2 | 80.7 | 61.6 | 77.0 |
| 5 | 61.1 | 55.7 | 57.8 | 59.7 | 57.2 | 53.1 | 84.8 | 60.2 |
| 6 | 70.7 | 70.9 | 73.0 | 70.5 | 67.1 | 69.0 | 40.0 | 67.8 |
| 7 | 75.7 | 77.2 | 79.1 | 75.5 | 80.6 | 84.1 | 55.6 | 77.4 |
| 8 | 67.3 | 69.0 | 68.7 | 61.9 | 62.3 | 62.1 | 54.4 | 64.7 |
| 9 | 72.5 | 66.5 | 71.6 | 89.9 | 71.1 | 73.1 | 35.2 | 56.0 |
| 10 | 74.8 | 68.4 | 78.2 | 64.7 | 72.5 | 70.3 | 66.6 | 72.3 |
| 11 | 49.2 | 51.9 | 46.9 | 42.4 | 43.8 | 50.3 | 63.2 | 48.4 |
| 12 | 54.4 | 49.4 | 58.8 | 53.2 | 49.8 | 47.6 | 50.4 | 52.4 |
| 13 | 35.7 | 29.1 | 36.0 | 41.7 | 39.8 | 37.2 | 60.0 | 38.5 |
| 14 | 36.6 | 31.0 | 31.3 | 38.8 | 39.8 | 29.0 | 56.8 | 37.3 |
| 15 | 63.0 | 55.1 | 57.3 | 51.8 | 48.6 | 61.4 | 40.0 | 55.5 |
| 16 | 66.1 | 61.4 | 71.6 | 66.2 | 63.9 | 69.7 | 81.6 | 67.2 |
| 17 | 72.5 | 67.1 | 68.2 | 72.7 | 69.2 | 71.7 | 60.8 | 69.8 |
| 18 | 66.2 | 63.3 | 61.6 | 65.5 | 69.4 | 67.6 | 60.0 | 65.8 |
| 19 | 73.0 | 73.4 | 72.5 | 69.1 | 69.0 | 73.1 | 72.8 | 71.8 |
| 20 | 53.6 | 42.4 | 49.8 | 46.8 | 52.5 | 49.7 | 26.4 | 49.1 |
| 21 | 83.5 | 62.7 | 72.0 | 66.2 | 70.1 | 70.3 | 54.4 | 72.5 |
| 22 | 84.5 | 72.2 | 82.0 | 78.4 | 81.0 | 88.3 | 44.0 | 79.1 |
| 23 | 54.9 | 49.4 | 45.5 | 45.3 | 53.9 | 53.8 | 57.6 | 52.4 |

TABLE LIV (CONT.)

| Test Item | Berkeley | Grant | Hampshire | Hardy | COUNTY Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|
| 24 | 33.6 | 34.2 | 38.9 | 30.2 | 31.3 | 29.7 | 31.7 | 33.0 |
| 25 | 53.6 | 50.6 | 55.0 | 58.3 | 53.9 | 52.4 | 45.2 | 51.9 |
| 26 | 54.0 | 40.5 | 53.1 | 40.3 | 47.9 | 47.6 | 50.8 | 49.3 |
| 27 | 61.8 | 51.3 | 67.3 | 54.0 | 56.3 | 56.5 | 62.7 | 59.2 |
| 28 | 52.8 | 46.8 | 46.4 | 48.9 | 46.5 | 48.3 | 56.3 | 49.6 |
| 29 | 40.0 | 31.0 | 33.6 | 33.1 | 35.9 | 41.4 | 31.0 | 33.2 |
| 30 | 52.8 | 46.8 | 46.0 | 53.2 | 57.4 | 51.0 | 50.8 | 52.3 |
| 31 | 30.4 | 29.7 | 31.3 | 32.4 | 33.6 | 29.7 | 29.4 | 31.3 |
| 32 | 61.4 | 52.5 | 58.3 | 55.4 | 66.1 | 57.9 | 57.1 | 60.3 |
| 33 | 55.1 | 61.4 | 55.5 | 58.3 | 54.2 | 54.5 | 64.3 | 52.3 |
| 34 | 35.0 | 28.5 | 28.4 | 32.4 | 34.5 | 29.6 | 34.1 | 30.1 |
| 35 | 25.9 | 31.0 | 28.0 | 27.3 | 50.6 | 32.4 | 29.0 | 34.2 |
| | | | | | PART II | | | |
| 1 | 60.0 | 50.0 | 58.3 | 61.2 | 52.1 | 47.6 | 63.5 | 56.3 |
| 2 | 72.1 | 67.1 | 64.9 | 77.0 | 69.2 | 66.2 | 72.2 | 70.0 |
| 3 | 73.0 | 62.7 | 64.0 | 77.7 | 67.1 | 74.5 | 72.2 | 70.0 |
| 4 | 45.3 | 39.9 | 35.5 | 43.2 | 41.4 | 47.6 | 45.2 | 42.7 |
| 5 | 54.5 | 51.9 | 45.5 | 52.5 | 52.5 | 46.2 | 56.3 | 52.0 |
| 6 | 71.8 | 69.0 | 73.9 | 73.4 | 68.3 | 68.3 | 76.2 | 71.1 |
| 7 | 76.4 | 65.8 | 75.4 | 79.1 | 72.7 | 70.3 | 83.3 | 74.6 |
| 8 | 48.7 | 43.7 | 44.1 | 42.4 | 50.5 | 55.2 | 54.0 | 48.5 |
| 9 | 63.8 | 53.8 | 61.6 | 66.2 | 63.9 | 60.7 | 58.7 | 62.2 |
| 10 | 76.7 | 69.6 | 76.8 | 80.6 | 75.0 | 70.3 | 70.6 | 75.0 |
| 11 | 55.8 | 51.9 | 55.5 | 54.0 | 54.6 | 60.7 | 50.8 | 55.0 |
| 12 | 69.1 | 65.2 | 67.3 | 68.3 | 66.9 | 69.0 | 71.4 | 68.1 |

TABLE LIV (CONT.)

| Test Item | Berkeley | Grant | Hampshire | Hardy | COUNTY Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|
| 13 | 32.3 | 32.3 | 37.0 | 40.3 | 31.0 | 24.1 | 36.5 | 32.8 |
| 14 | 29.1 | 30.4 | 25.1 | 31.7 | 52.4 | 36.6 | 31.0 | 35.4 |
| 15 | 60.0 | 46.8 | 53.6 | 56.1 | 46.1 | 55.2 | 51.6 | 53.4 |
| 16 | 55.2 | 50.0 | 54.2 | 62.6 | 51.2 | 48.3 | 60.3 | 54.0 |
| 17 | 66.6 | 57.0 | 59.2 | 68.3 | 57.2 | 61.4 | 71.4 | 62.6 |
| 18 | 49.7 | 39.9 | 39.8 | 51.1 | 44.9 | 46.9 | 46.0 | 46.1 |
| 19 | 61.3 | 55.1 | 54.0 | 56.8 | 69.2 | 49.7 | 31.1 | 58.4 |
| 20 | 51.9 | 44.9 | 47.4 | 38.1 | 47.9 | 54.5 | 57.9 | 48.6 |
| 21 | 76.6 | 64.0 | 76.8 | 83.5 | 73.1 | 71.0 | 77.8 | 74.8 |
| 22 | 80.3 | 67.1 | 68.7 | 74.8 | 41.3 | 76.6 | 74.6 | 67.1 |
| 23 | 40.1 | 44.9 | 36.5 | 40.3 | 41.4 | 47.6 | 41.3 | 41.1 |
| 24 | 57.0 | 46.8 | 55.9 | 53.3 | 54.2 | 51.7 | 57.9 | 54.6 |
| 25 | 58.1 | 58.9 | 55.0 | 66.9 | 54.9 | 57.2 | 54.3 | 57.4 |
| 26 | 86.8 | 77.2 | 31.0 | 77.0 | 80.8 | 84.8 | 85.7 | 76.9 |
| 27 | 67.8 | 62.0 | 61.6 | 62.6 | 45.5 | 67.6 | 65.1 | 60.5 |
| 28 | 82.9 | 76.6 | 78.7 | 79.9 | 77.1 | 76.6 | 85.7 | 79.9 |
| 29 | 40.1 | 39.9 | 40.8 | 34.5 | 44.9 | 29.0 | 42.1 | 40.1 |
| 30 | 48.7 | 45.6 | 45.0 | 40.3 | 49.3 | 36.6 | 49.2 | 45.7 |
| 31 | 35.7 | 38.0 | 35.1 | 45.3 | 41.0 | 48.3 | 47.6 | 40.4 |
| 32 | 73.0 | 67.7 | 78.7 | 68.3 | 65.0 | 69.7 | 65.9 | 70.1 |
| 33 | 50.3 | 42.4 | 48.3 | 54.0 | 55.1 | 48.3 | 50.8 | 50.7 |
| 34 | 58.6 | 53.2 | 55.0 | 51.8 | 57.2 | 63.4 | 54.8 | 56.9 |
| 35 | 67.3 | 65.2 | 66.4 | 69.8 | 63.7 | 60.0 | 66.7 | 65.7 |

TABLE LV

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER TEST ITEM: SEQUENTIAL TEST OF EDUCATIONAL PROGRESS, WRITING, GRADE 9 1969-70 BY COUNTY AND REGION

| Test Item | Berkeley | Grant | Hampshire | Hardy | COUNTY Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|
| 1 | 78.0 | 72.2 | 76.3 | 83.2 | 78.7 | 75.4 | 82.4 | 78.0 |
| 2 | 78.3 | 73.4 | 77.3 | 77.9 | 67.5 | 78.2 | 80.0 | 75.2 |
| 3 | 92.5 | 88.0 | 87.9 | 93.9 | 86.1 | 85.9 | 84.8 | 89.0 |
| 4 | 60.4 | 51.3 | 54.6 | 58.0 | 54.8 | 62.0 | 61.6 | 57.6 |
| 5 | 81.5 | 72.8 | 80.7 | 77.0 | 74.0 | 80.3 | 84.8 | 78.6 |
| 6 | 35.3 | 35.4 | 38.2 | 31.3 | 22.5 | 38.7 | 40.0 | 32.8 |
| 7 | 64.8 | 55.7 | 57.0 | 58.0 | 61.9 | 57.7 | 65.6 | 61.3 |
| 8 | 53.6 | 48.9 | 44.4 | 56.5 | 55.7 | 55.6 | 54.4 | 53.0 |
| 9 | 32.3 | 34.2 | 29.0 | 32.1 | 32.3 | 35.2 | 35.2 | 32.5 |
| 10 | 59.5 | 60.1 | 63.8 | 67.2 | 59.6 | 60.6 | 66.4 | 61.3 |
| 11 | 58.4 | 50.6 | 48.3 | 56.5 | 51.5 | 45.8 | 63.2 | 54.0 |
| 12 | 54.4 | 55.1 | 51.7 | 56.5 | 50.6 | 50.0 | 50.4 | 52.7 |
| 13 | 46.7 | 49.4 | 48.8 | 49.6 | 49.9 | 49.3 | 60.0 | 49.4 |
| 14 | 57.7 | 51.2 | 55.6 | 47.3 | 49.4 | 50.0 | 56.8 | 53.3 |
| 15 | 45.3 | 35.4 | 43.5 | 40.5 | 49.9 | 39.4 | 40.0 | 44.1 |
| 16 | 78.7 | 74.7 | 75.8 | 80.9 | 75.2 | 78.9 | 81.6 | 77.5 |
| 17 | 65.5 | 60.1 | 68.1 | 71.8 | 61.0 | 64.8 | 60.8 | 64.3 |
| 18 | 61.6 | 55.7 | 61.4 | 67.9 | 60.8 | 70.4 | 60.0 | 61.9 |
| 19 | 69.1 | 70.9 | 75.8 | 71.0 | 69.8 | 70.4 | 72.8 | 70.7 |
| 20 | 36.6 | 36.7 | 32.4 | 34.4 | 36.7 | 31.0 | 26.4 | 34.8 |
| 21 | 52.4 | 47.5 | 52.7 | 47.3 | 51.7 | 54.9 | 54.4 | 51.8 |
| 22 | 61.1 | 44.9 | 63.8 | 56.5 | 54.1 | 57.0 | 44.0 | 56.4 |

TABLE LV (CONT.)

| Test Item | Berkeley | Grant | Hampshire | Hardy | COUNTY Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|
| 23 | 57.0 | 46.2 | 62.3 | 53.4 | 53.1 | 56.3 | 57.6 | 55.4 |
| 24 | 52.8 | 46.2 | 44.0 | 53.4 | 47.1 | 48.6 | 48.0 | 49.2 |
| 25 | 50.3 | 53.8 | 41.4 | 50.4 | 51.0 | 51.4 | 56.8 | 50.3 |
| 26 | 50.4 | 48.7 | 32.1 | 52.7 | 47.3 | 45.1 | 48.8 | 49.0 |
| 27 | 49.7 | 38.0 | 44.5 | 43.5 | 42.9 | 46.5 | 51.2 | 45.8 |
| 28 | 70.3 | 65.2 | 62.9 | 71.0 | 64.0 | 67.0 | 72.0 | 67.7 |
| 29 | 48.1 | 48.1 | 45.3 | 49.6 | 45.7 | 50.7 | 52.0 | 48.1 |
| 30 | 34.1 | 29.1 | 31.4 | 39.7 | 36.7 | 31.7 | 34.4 | 26.9 |
| | | | | | PART II | | | |
| 1 | 70.3 | 65.2 | 71.5 | 67.9 | 68.4 | 72.5 | 73.6 | 69.7 |
| 2 | 39.2 | 39.2 | 36.2 | 41.2 | 44.1 | 39.4 | 39.2 | 40.2 |
| 3 | 35.2 | 37.3 | 42.0 | 44.3 | 32.7 | 40.1 | 44.8 | 37.4 |
| 4 | 60.0 | 38.6 | 49.8 | 61.1 | 59.6 | 62.0 | 53.6 | 56.6 |
| 5 | 41.6 | 27.8 | 32.4 | 35.1 | 35.7 | 46.5 | 44.0 | 37.9 |
| 6 | 72.1 | 63.9 | 70.5 | 73.3 | 71.7 | 78.2 | 78.4 | 72.1 |
| 7 | 49.6 | 48.7 | 43.5 | 44.3 | 46.2 | 59.2 | 58.4 | 48.9 |
| 8 | 58.4 | 59.5 | 58.5 | 66.4 | 55.0 | 62.7 | 64.8 | 59.1 |
| 9 | 52.2 | 45.6 | 40.6 | 48.9 | 44.8 | 48.6 | 53.6 | 48.0 |
| 10 | 38.0 | 39.2 | 41.5 | 39.7 | 40.4 | 41.5 | 42.4 | 39.8 |
| 11 | 54.0 | 48.1 | 53.1 | 52.7 | 56.4 | 59.2 | 60.0 | 54.0 |
| 12 | 33.2 | 30.4 | 35.7 | 35.9 | 34.1 | 35.9 | 27.2 | 33.6 |
| 13 | 27.5 | 19.6 | 28.0 | 34.4 | 26.0 | 23.2 | 25.6 | 26.6 |
| 14 | 36.0 | 32.3 | 40.1 | 42.7 | 33.4 | 38.7 | 42.4 | 36.7 |

TABLE LV (CONT.)

| Test Item | Berkeley | Grant | Hampshire | Hardy | COUNTY Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|
| 15 | 20.0 | 7.0 | 8.2 | 8.4 | 7.9 | 8.5 | 8.0 | 11.8 |
| 16 | 54.5 | 41.8 | 46.9 | 48.9 | 47.8 | 56.3 | 60.0 | 50.9 |
| 17 | 30.7 | 31.0 | 30.9 | 33.6 | 33.2 | 32.5 | 36.0 | 32.1 |
| 18 | 43.9 | 33.5 | 45.4 | 18.3 | 36.2 | 56.3 | 35.2 | 39.6 |
| 19 | 71.4 | 62.0 | 59.9 | 77.9 | 69.1 | 74.6 | 70.4 | 69.3 |
| 20 | 50.8 | 54.4 | 39.6 | 43.5 | 47.6 | 54.2 | 52.0 | 48.8 |
| 21 | 71.2 | 69.0 | 66.7 | 64.1 | 68.7 | 74.6 | 66.4 | 69.2 |
| 22 | 60.2 | 50.6 | 54.1 | 53.4 | 57.3 | 57.7 | 64.0 | 58.6 |
| 23 | 75.3 | 71.5 | 74.4 | 71.0 | 72.9 | 81.0 | 80.8 | 74.8 |
| 24 | 50.6 | 50.0 | 45.9 | 48.1 | 45.5 | 47.9 | 47.2 | 48.1 |
| 25 | 73.7 | 69.6 | 64.7 | 64.1 | 74.5 | 73.2 | 72.0 | 71.5 |
| 26 | 31.3 | 34.8 | 30.4 | 26.7 | 30.6 | 31.0 | 27.2 | 30.7 |
| 27 | 46.7 | 47.5 | 48.8 | 46.6 | 48.3 | 45.8 | 55.2 | 47.9 |
| 28 | 35.0 | 36.7 | 37.7 | 38.2 | 33.6 | 30.3 | 33.6 | 34.9 |
| 29 | 33.9 | 25.3 | 24.2 | 21.4 | 30.2 | 33.1 | 21.6 | 29.2 |
| 30 | 40.5 | 40.5 | 45.4 | 38.9 | 40.1 | 33.1 | 38.4 | 40.1 |

TABLE LVI

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER TEST ITEM: SEQUENTIAL TEST OF EDUCATIONAL PROGRESS, LISTENING, GRADE 9
1969-70 BY COUNTY AND REGION

| Test Item | Berkeley | Grant | Hampshire | Hardy | COUNTY Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|
| | | | | | PART I | | | |
| 1 | 70.9 | 63.3 | 73.9 | 72.6 | 67.5 | 64.8 | 76.2 | 69.8 |
| 2 | 88.0 | 82.9 | 82.3 | 89.5 | 86.0 | 88.0 | 84.1 | 86.2 |
| 3 | 37.7 | 39.9 | 28.1 | 33.9 | 36.2 | 35.2 | 27.8 | 35.2 |
| 4 | 44.8 | 48.1 | 46.3 | 42.7 | 42.5 | 33.1 | 53.2 | 44.2 |
| 5 | 29.9 | 31.0 | 24.6 | 33.9 | 30.6 | 25.4 | 30.2 | 29.5 |
| 6 | 52.1 | 53.8 | 53.7 | 54.8 | 54.7 | 50.0 | 49.2 | 48.9 |
| 7 | 64.4 | 53.8 | 60.1 | 64.5 | 63.8 | 59.9 | 65.1 | 62.5 |
| 8 | 83.5 | 87.3 | 84.2 | 78.2 | 80.8 | 82.4 | 91.3 | 83.3 |
| 9 | 69.8 | 77.8 | 63.5 | 69.4 | 68.7 | 71.1 | 75.4 | 70.0 |
| 10 | 70.9 | 65.2 | 65.5 | 72.6 | 70.1 | 64.8 | 67.5 | 69.0 |
| 11 | 43.0 | 50.0 | 36.0 | 37.9 | 49.9 | 43.0 | 43.7 | 44.1 |
| 12 | 89.7 | 88.0 | 88.7 | 84.7 | 87.9 | 81.7 | 89.7 | 88.0 |
| 13 | 68.0 | 57.6 | 59.4 | 74.2 | 60.3 | 66.2 | 61.9 | 64.1 |
| 14 | 87.0 | 84.2 | 79.3 | 75.8 | 76.2 | 85.2 | 81.0 | 81.8 |
| 15 | 89.0 | 91.8 | 79.3 | 87.9 | 83.6 | 86.6 | 90.5 | 86.6 |
| 16 | 81.5 | 81.6 | 74.4 | 84.7 | 83.0 | 68.3 | 81.7 | 80.2 |
| 17 | 64.8 | 79.7 | 60.6 | 73.4 | 69.6 | 54.2 | 82.5 | 67.9 |
| 18 | 81.5 | 77.8 | 73.9 | 77.4 | 76.4 | 83.1 | 77.8 | 78.5 |
| 19 | 84.7 | 81.0 | 83.3 | 85.5 | 84.8 | 71.1 | 88.9 | 83.5 |
| 20 | 66.0 | 60.8 | 60.1 | 65.3 | 59.3 | 59.2 | 62.7 | 62.4 |
| 21 | 69.4 | 65.2 | 64.0 | 71.8 | 64.0 | 68.3 | 66.7 | 67.0 |
| 22 | 84.5 | 91.1 | 84.7 | 88.7 | 82.0 | 88.0 | 84.1 | 85.1 |

TABLE LVI (CONT.)

| Test Item | Berkeley | Grant | Hampshire | Hardy | COUNTY Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|
| 23 | 50.5 | 51.9 | 46.8 | 49.2 | 47.0 | 56.3 | 50.0 | 49.7 |
| 24 | 70.3 | 67.1 | 64.5 | 80.6 | 62.4 | 64.8 | 59.5 | 67.0 |
| 25 | 74.5 | 82.9 | 70.0 | 87.9 | 77.1 | 71.1 | 77.0 | 76.3 |
| 26 | 76.0 | 77.8 | 67.5 | 65.3 | 68.7 | 67.6 | 69.8 | 71.4 |
| 27 | 52.5 | 57.6 | 56.7 | 52.4 | 50.9 | 52.8 | 57.1 | 53.4 |
| 28 | 84.7 | 79.7 | 78.8 | 80.6 | 81.8 | 80.3 | 78.6 | 81.7 |
| 29 | 35.2 | 45.6 | 32.5 | 49.2 | 43.0 | 49.3 | 38.9 | 40.2 |
| 30 | 76.0 | 76.6 | 72.3 | 73.4 | 71.0 | 69.7 | 72.2 | 73.4 |
| 31 | 33.8 | 35.4 | 37.4 | 34.7 | 37.1 | 41.5 | 41.3 | 36.4 |
| 32 | 71.1 | 65.2 | 71.9 | 58.9 | 64.5 | 66.2 | 69.8 | 67.6 |
| 33 | 63.5 | 87.3 | 70.4 | 83.1 | 70.6 | 75.4 | 81.7 | 72.0 |
| 34 | 22.8 | 29.1 | 15.8 | 28.2 | 28.3 | 28.2 | 23.8 | 24.8 |
| 35 | 59.1 | 55.1 | 62.1 | 62.9 | 63.8 | 69.7 | 67.5 | 62.0 |
| 36 | 68.2 | 79.1 | 88.2 | 86.3 | 80.8 | 87.3 | 83.3 | 78.6 |
| | | | | PART II | | | | |
| 1 | 74.9 | 72.8 | 63.1 | 67.7 | 64.3 | 73.2 | 59.5 | 68.9 |
| 2 | 71.1 | 68.4 | 73.4 | 73.4 | 63.6 | 76.1 | 72.2 | 70.0 |
| 3 | 63.3 | 65.8 | 72.9 | 66.1 | 58.9 | 70.4 | 65.9 | 64.6 |
| 4 | 86.4 | 88.6 | 87.2 | 88.7 | 84.6 | 81.0 | 88.1 | 86.1 |
| 5 | 36.9 | 35.4 | 34.5 | 39.5 | 34.6 | 35.9 | 38.9 | 36.2 |
| 6 | 70.3 | 77.8 | 68.0 | 71.0 | 68.0 | 62.0 | 64.3 | 69.1 |
| 7 | 42.6 | 43.0 | 55.2 | 53.2 | 47.2 | 52.8 | 49.2 | 47.4 |
| 8 | 64.4 | 65.8 | 60.6 | 15.3 | 59.8 | 69.7 | 69.8 | 59.9 |
| 9 | 55.0 | 63.9 | 54.2 | 70.2 | 62.9 | 52.1 | 61.1 | 59.0 |
| 10 | 62.9 | 53.2 | 59.6 | 62.1 | 58.4 | 52.1 | 77.8 | 60.7 |
| 11 | 55.0 | 57.6 | 56.7 | 61.3 | 60.0 | 67.6 | 65.9 | 58.9 |

TABLE LVI (CONT.)

| Test Item | Berkeley | Grant | Hampshire | Hardy | COUNTY Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|
| 12 | 64.2 | 53.2 | 51.7 | 50.8 | 57.5 | 59.2 | 55.6 | 58.0 |
| 13 | 52.5 | 50.6 | 46.3 | 50.8 | 50.9 | 54.2 | 57.1 | 51.5 |
| 14 | 72.9 | 77.8 | 70.9 | 72.6 | 77.6 | 78.2 | 74.6 | 74.8 |
| 15 | 72.7 | 63.9 | 71.4 | 71.0 | 72.0 | 74.6 | 72.2 | 71.6 |
| 16 | 56.2 | 50.0 | 56.7 | 54.0 | 57.5 | 62.7 | 50.8 | 56.0 |
| 17 | 77.6 | 73.4 | 72.4 | 75.0 | 76.2 | 79.6 | 80.2 | 76.4 |
| 18 | 83.7 | 82.3 | 82.3 | 80.6 | 80.4 | 85.2 | 88.1 | 82.8 |
| 19 | 89.0 | 86.4 | 81.8 | 81.5 | 82.5 | 90.1 | 88.9 | 85.8 |
| 20 | 77.6 | 72.8 | 71.4 | 77.4 | 70.8 | 76.1 | 80.2 | 74.8 |
| 21 | 71.1 | 72.2 | 64.5 | 74.2 | 72.0 | 73.9 | 75.4 | 71.4 |
| 22 | 62.3 | 63.3 | 60.6 | 78.2 | 68.0 | 64.1 | 73.8 | 65.8 |
| 23 | 45.8 | 49.4 | 49.8 | 52.4 | 50.2 | 42.3 | 50.8 | 48.3 |
| 24 | 38.3 | 34.8 | 30.0 | 40.3 | 41.1 | 35.2 | 37.3 | 37.5 |
| 25 | 57.6 | 51.3 | 64.0 | 61.3 | 59.1 | 58.5 | 57.1 | 58.5 |
| 26 | 70.9 | 77.2 | 70.9 | 71.8 | 75.5 | 71.1 | 77.0 | 73.1 |
| 27 | 25.9 | 32.9 | 31.5 | 21.0 | 28.3 | 24.6 | 23.0 | 27.1 |
| 28 | 54.0 | 60.1 | 48.3 | 46.8 | 53.0 | 55.6 | 49.2 | 52.9 |
| 29 | 58.2 | 51.3 | 64.0 | 39.5 | 50.7 | 52.1 | 43.7 | 53.5 |
| 30 | 32.0 | 25.9 | 27.6 | 30.6 | 33.9 | 29.6 | 22.2 | 30.4 |
| 31 | 27.7 | 41.8 | 30.5 | 46.0 | 36.4 | 29.6 | 37.3 | 33.7 |
| 32 | 58.7 | 53.2 | 57.1 | 61.3 | 57.0 | 52.8 | 61.1 | 51.1 |
| 33 | 32.8 | 24.1 | 30.5 | 29.0 | 32.5 | 28.9 | 32.5 | 28.2 |
| 34 | 33.6 | 36.7 | 40.4 | 29.8 | 34.1 | 31.0 | 34.9 | 35.2 |
| 35 | 15.3 | 16.5 | 23.2 | 16.9 | 20.6 | 16.9 | 19.8 | 18.2 |
| 36 | 43.6 | 45.6 | 52.2 | 37.1 | 46.3 | 42.3 | 42.1 | 44.7 |

TABLE LVII

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER TEST ITEM: SEQUENTIAL TEST OF EDUCATIONAL PROGRESS, READING, GRADE 11 1969-70 BY COUNTY AND REGION

| Test Item | Berkley | Grant | Hampshire | COUNTY Hardy | Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|
| | | | | PART I | | | | |
| 1 | 49.6 | 44.4 | 39.0 | 51.0 | 53.0 | 42.0 | 50.0 | 48.1 |
| 2 | 70.1 | 76.9 | 70.9 | 73.5 | 67.5 | 73.1 | 76.4 | 71.4 |
| 3 | 65.8 | 64.1 | 57.9 | 68.2 | 70.2 | 62.2 | 63.2 | 65.6 |
| 4 | 64.1 | 66.7 | 59.8 | 68.9 | 61.5 | 65.5 | 68.9 | 64.1 |
| 5 | 57.3 | 55.5 | 62.2 | 65.6 | 68.1 | 69.8 | 57.5 | 63.8 |
| 6 | 71.0 | 52.1 | 55.5 | 71.5 | 65.4 | 61.3 | 61.3 | 63.2 |
| 7 | 88.0 | 85.5 | 77.4 | 84.8 | 84.7 | 84.9 | 86.8 | 84.3 |
| 8 | 60.7 | 59.0 | 60.4 | 62.3 | 61.2 | 67.2 | 58.5 | 61.3 |
| 9 | 74.4 | 56.4 | 13.4 | 70.9 | 62.3 | 58.8 | 59.8 | 56.5 |
| 10 | 64.1 | 60.7 | 61.6 | 66.9 | 64.9 | 65.5 | 64.2 | 64.2 |
| 11 | 77.8 | 70.9 | 67.1 | 71.5 | 74.7 | 73.1 | 69.8 | 72.5 |
| 12 | 76.1 | 68.4 | 69.5 | 78.8 | 77.3 | [illegible].3 | 74.5 | 75.1 |
| 13 | 72.6 | 59.8 | 64.0 | 64.9 | 68.1 | 72.3 | 73.6 | 67.7 |
| 14 | 51.3 | 57.3 | 41.5 | 31.1 | 43.8 | 58.8 | 37.7 | 45.0 |
| 15 | 81.2 | 65.8 | 72.6 | 71.5 | 72.0 | 79.0 | 81.1 | 73.9 |
| 16 | 83.8 | 80.3 | 77.4 | 81.5 | 79.2 | 78.2 | 83.0 | 80.1 |
| 17 | 65.0 | 65.8 | 55.5 | 65.6 | 64.9 | 71.4 | 68.2 | 64.8 |
| 18 | 63.2 | 65.0 | 62.8 | 62.9 | 57.0 | 66.4 | 69.8 | 62.2 |
| 19 | 70.1 | 68.3 | 59.1 | 68.2 | 67.0 | 77.3 | 67.9 | 69.1 |
| 20 | 30.8 | 37.6 | 29.3 | 41.7 | 35.1 | 40.3 | 44.3 | 36.4 |
| 21 | 52.1 | 53.0 | 57.9 | 65.6 | 59.6 | 61.3 | 64.2 | 59.3 |
| 22 | 48.7 | 52.1 | 42.7 | 51.7 | 49.9 | 38.8 | 42.5 | 47.4 |
| 23 | 45.3 | 59.0 | 61.6 | 58.9 | 55.4 | 47.9 | 37.5 | 53.6 |
| 24 | 66.7 | 52.1 | 54.9 | 65.6 | 61.5 | 55.5 | 67.9 | 60.6 |

TABLE LVII (CONT.)

| Test Item | Berkley | Grant | Hampshire | COUNTY Hardy | Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|
| 25 | 31.6 | 39.3 | 34.8 | 37.1 | 50.1 | 44.5 | 37.7 | 41.5 |
| 26 | 73.5 | 64.1 | 70.1 | 66.2 | 70.9 | 72.3 | 71.7 | 70.0 |
| 27 | 65.8 | 59.0 | 63.4 | 68.2 | 69.3 | 70.6 | 58.5 | 66.1 |
| 28 | 58.1 | 48.7 | 56.7 | 55.6 | 56.7 | 55.5 | 56.6 | 55.8 |
| 29 | 47.0 | 59.8 | 57.0 | 55.0 | 55.1 | 61.3 | 55.1 | 55.4 |
| 30 | 43.6 | 45.3 | 36.6 | 48.3 | 45.6 | 52.9 | 45.3 | 45.2 |
| 31 | 72.6 | 66.7 | 69.5 | 70.2 | 72.8 | 71.4 | 73.6 | 71.2 |
| 32 | 44.4 | 41.0 | 39.0 | 43.0 | 41.2 | 42.0 | 30.2 | 40.5 |
| 33 | 51.3 | 44.4 | 45.1 | 48.3 | 48.5 | 52.8 | 38.7 | 47.4 |
| 34 | 53.0 | 48.7 | 45.7 | 55.6 | 55.4 | 57.1 | 50.9 | 52.7 |
| 35 | 47.9 | 48.4 | 43.3 | 47.7 | 48.3 | 50.4 | 50.0 | 47.9 |
| | | | | PART II | | | | |
| 1 | 85.5 | 87.2 | 92.7 | 93.4 | 88.7 | 89.1 | 93.4 | 89.9 |
| 2 | 90.6 | 73.5 | 82.3 | 86.8 | 87.6 | 87.4 | 88.7 | 85.7 |
| 3 | 80.3 | 76.9 | 79.9 | 88.7 | 81.0 | 79.8 | 86.8 | 81.8 |
| 4 | 42.7 | 39.3 | 34.1 | 40.4 | 43.0 | 40.3 | 44.3 | 40.8 |
| 5 | 45.3 | 45.3 | 34.8 | 47.0 | 43.5 | 43.7 | 44.3 | 43.2 |
| 6 | 75.2 | 66.6 | 61.6 | 78.8 | 69.4 | 63.9 | 80.2 | 70.2 |
| 7 | 48.7 | 53.0 | 54.3 | 51.7 | 50.1 | 51.3 | 55.7 | 51.7 |
| 8 | 45.3 | 44.4 | 40.2 | 39.1 | 40.1 | 43.7 | 42.5 | 41.6 |
| 9 | 71.8 | 65.0 | 70.1 | 72.8 | 68.9 | 62.2 | 75.5 | 69.4 |
| 10 | 53.8 | 62.4 | 50.0 | 56.3 | 58.0 | 65.5 | 50.0 | 56.7 |
| 11 | 63.2 | 65.0 | 67.7 | 67.5 | 67.0 | 60.5 | 78.3 | 66.9 |
| 12 | 59.0 | 47.9 | 46.3 | 58.3 | 53.0 | 49.5 | 51.9 | 52.4 |
| 13 | 65.0 | 71.0 | 66.5 | 70.2 | 70.0 | 73.9 | 66.0 | 69.2 |
| 14 | 46.2 | 49.6 | 43.9 | 50.3 | 44.9 | 42.0 | 41.5 | 45.4 |
| 15 | 43.6 | 43.6 | 43.3 | 42.4 | 37.5 | 47.9 | 35.8 | 41.1 |

TABLE LVII (CONT.)

| Test Item | Berkley | Grant | Hampshire | COUNTY Hardy | Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|
| 16 | 71.8 | 71.8 | 80.5 | 72.8 | 71.0 | 67.2 | 82.1 | 73.4 |
| 17 | 81.2 | 71.8 | 77.4 | 78.1 | 76.8 | 81.5 | 82.1 | 78.0 |
| 18 | 49.6 | 41.9 | 48.2 | 41.1 | 51.2 | 48.7 | 42.5 | 47.3 |
| 19 | 86.3 | 79.5 | 81.1 | 84.8 | 86.5 | 79.8 | 84.0 | 83.8 |
| 20 | 30.8 | 29.9 | 26.8 | 25.8 | 23.0 | 31.9 | 36.8 | 27.6 |
| 21 | 53.0 | 45.3 | 55.5 | 53.0 | 54.9 | 47.9 | 47.2 | 52.1 |
| 22 | 43.6 | 52.1 | 48.2 | 47.7 | 50.4 | 50.4 | 56.6 | 49.8 |
| 23 | 34.2 | 26.5 | 27.8 | 39.1 | 30.9 | 40.3 | 43.4 | 35.0 |
| 24 | 61.5 | 40.2 | 44.5 | 47.7 | 48.6 | 47.1 | 52.8 | 48.6 |
| 25 | 26.5 | 29.1 | 32.9 | 37.1 | 27.7 | 53.6 | 33.0 | 32.9 |
| 26 | 47.0 | 50.4 | 53.0 | 58.9 | 49.1 | 58.8 | 62.6 | 53.1 |
| 27 | 74.4 | 77.9 | 71.3 | 80.8 | 74.9 | 73.9 | 83.0 | 76.1 |
| 28 | 77.0 | 73.5 | 75.6 | 84.8 | 77.0 | 77.3 | 80.2 | 77.8 |
| 29 | 46.2 | 48.7 | 45.1 | 43.7 | 44.3 | 54.6 | 38.7 | 45.5 |
| 30 | 29.9 | 28.2 | 22.0 | 24.5 | 26.4 | 35.3 | 31.1 | 27.4 |
| 31 | 88.9 | 74.4 | 76.8 | 82.1 | 79.9 | 76.5 | 86.8 | 80.4 |
| 32 | 57.3 | 65.8 | 59.1 | 65.6 | 62.0 | 50.4 | 67.0 | 61.2 |
| 33 | 53.0 | 29.9 | 40.2 | 49.0 | 42.5 | 46.2 | 48.6 | 44.2 |
| 34 | 35.9 | 41.0 | 35.4 | 35.1 | 39.1 | 43.7 | 45.3 | 39.0 |
| 35 | 32.5 | 28.2 | 29.3 | 33.8 | 31.4 | 36.1 | 20.8 | 30.7 |

TABLE LVIII

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER TEST ITEM: SEQUENTIAL TEST OF EDUCATIONAL PROGRESS, WRITING, GRADE 11 1969-70 BY COUNTY AND REGION

| Test Item | Berkley | Grant | Hampshire | COUNTY Hardy | Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|
| | | | | PART I | | | | |
| 1 | 75.4 | 70.9 | 63.6 | 76.5 | 72.8 | 76.2 | 71.7 | 72.3 |
| 2 | 20.9 | 21.4 | 20.4 | 22.8 | 28.3 | 29.5 | 32.1 | 25.5 |
| 3 | 53.9 | 52.1 | 59.9 | 58.4 | 57.9 | 61.5 | 56.6 | 57.5 |
| 4 | 72.2 | 61.5 | 77.2 | 73.2 | 67.5 | 72.1 | 84.0 | 71.5 |
| 5 | 79.1 | 67.6 | 73.5 | 74.5 | 59.9 | 62.3 | 77.4 | 68.3 |
| 6 | 67.8 | 57.3 | 63.6 | 58.4 | 63.2 | 63.1 | 61.3 | 62.3 |
| 7 | 44.3 | 35.0 | 44.4 | 44.3 | 49.9 | 40.2 | 51.9 | 45.5 |
| 8 | 46.1 | 47.9 | 46.3 | 52.3 | 45.6 | 53.3 | 50.9 | 48.2 |
| 9 | 33.0 | 28.2 | 34.0 | 32.9 | 29.3 | 32.0 | 40.6 | 32.0 |
| 10 | 56.5 | 54.7 | 39.9 | 57.7 | 56.0 | 52.5 | 66.0 | 54.4 |
| 11 | 67.0 | 53.8 | 56.2 | 56.4 | 63.7 | 63.9 | 67.9 | 62.3 |
| 12 | 50.4 | 38.5 | 45.7 | 40.9 | 46.9 | 36.9 | 43.4 | 44.1 |
| 13 | 70.4 | 51.3 | 68.5 | 67.8 | 61.9 | 64.8 | 49.8 | 62.6 |
| 14 | 53.0 | 52.1 | 54.9 | 65.1 | 53.1 | 54.1 | 51.9 | 54.8 |
| 15 | 64.3 | 62.4 | 63.6 | 73.8 | 68.8 | 68.0 | 62.3 | 66.9 |
| 16 | 43.5 | 42.7 | 45.1 | 41.6 | 41.6 | 41.0 | 44.3 | 42.6 |
| 17 | 44.3 | 46.2 | 50.0 | 53.0 | 45.6 | 48.4 | 48.1 | 47.6 |
| 18 | 61.7 | 51.3 | 64.2 | 65.8 | 58.4 | 61.5 | 61.3 | 60.4 |
| 19 | 37.4 | 31.6 | 45.7 | 44.3 | 38.4 | 39.3 | 49.1 | 40.5 |
| 20 | 50.4 | 53.0 | 56.8 | 53.0 | 49.3 | 52.5 | 49.1 | 51.6 |
| 21 | 64.3 | 56.4 | 70.4 | 73.8 | 65.6 | 63.1 | 81.1 | 67.4 |
| 22 | 54.8 | 47.9 | 61.7 | 53.7 | 52.0 | 58.2 | 56.6 | 54.5 |
| 23 | 66.1 | 72.6 | 72.8 | 77.2 | 78.1 | 73.0 | 74.5 | 76.6 |
| 24 | 67.0 | 60.7 | 74.1 | 69.8 | 72.5 | 59.0 | 66.0 | 68.6 |

TABLE LVIII (CONT.)

| Test Item | Berkley | Grant | Hampshire | COUNTY Hardy | Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|
| 25 | 21.7 | 23.9 | 21.6 | 16.8 | 28.3 | 74.0 | 20.8 | 28.9 |
| 26 | 36.5 | 38.5 | 56.2 | 43.0 | 52.3 | 47.5 | 39.6 | 47.0 |
| 27 | 47.0 | 46.2 | 51.2 | 42.3 | 43.7 | 45.1 | 49.1 | 45.8 |
| 28 | 40.0 | 38.5 | 48.8 | 36.2 | 43.5 | 46.7 | 66.0 | 44.9 |
| 29 | 44.3 | 54.7 | 63.0 | 56.4 | 55.7 | 43.4 | 49.1 | 53.6 |
| 30 | 65.2 | 60.7 | 63.0 | 61.1 | 61.9 | 63.1 | 54.7 | 61.6 |
| | | | | PART II | | | | |
| 1 | 40.0 | 37.6 | 42.0 | 41.6 | 38.1 | 41.8 | 30.2 | 38.9 |
| 2 | 27.0 | 29.1 | 25.9 | 30.2 | 29.1 | 34.4 | 56.6 | 31.7 |
| 3 | 45.2 | 39.3 | 45.1 | 38.5 | 44.3 | 43.4 | 41.5 | 42.9 |
| 4 | 8.9 | 17.1 | 21.6 | 14.1 | 16.3 | 15.6 | 22.6 | 16.6 |
| 5 | 25.2 | 27.4 | 25.3 | 26.8 | 29.3 | 26.2 | 37.7 | 28.3 |
| 6 | 49.6 | 39.3 | 57.4 | 54.4 | 49.9 | 50.0 | 64.2 | 51.8 |
| 7 | 15.7 | 25.6 | 13.0 | 20.1 | 24.8 | 17.2 | 19.8 | 20.4 |
| 8 | 28.7 | 28.2 | 24.7 | 24.8 | 27.2 | 28.7 | 26.4 | 26.9 |
| 9 | 41.7 | 35.0 | 46.9 | 40.3 | 42.1 | 39.3 | 40.6 | 40.4 |
| 10 | 17.4 | 12.8 | 24.1 | 20.1 | 16.5 | 32.0 | 17.0 | 20.7 |
| 11 | 39.1 | 37.6 | 43.2 | 44.3 | 39.7 | 27.0 | 43.4 | 39.5 |
| 12 | 40.0 | 29.9 | 32.7 | 41.6 | 27.7 | 34.4 | 35.8 | 33.1 |
| 13 | 54.8 | 39.3 | 52.5 | 51.0 | 64.3 | 58.2 | 65.1 | 56.8 |
| 14 | 38.3 | 39.3 | 40.1 | 43.0 | 43.2 | 45.1 | 37.7 | 41.2 |
| 15 | 37.4 | 41.0 | 35.2 | 35.6 | 37.1 | 36.1 | 36.8 | 37.0 |
| 16 | 14.8 | 57.3 | 59.9 | 57.7 | 60.5 | 63.1 | 55.7 | 54.1 |
| 17 | 58.3 | 48.7 | 56.8 | 58.4 | 56.8 | 56.6 | 62.3 | 56.8 |
| 18 | 54.0 | 47.0 | 58.9 | 63.8 | 59.7 | 53.3 | 59.4 | 57.9 |
| 19 | 40.0 | 29.1 | 22.8 | 30.2 | 28.3 | 30.3 | 40.6 | 30.4 |
| 20 | 35.7 | 49.4 | 39.5 | 47.7 | 35.7 | 34.4 | 44.3 | 40.4 |

TABLE LVIII (CONT.)

| Test Item | Berkley | Grant | Hampshire | COUNTY Hardy | Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|
| 21 | 65.2 | 55.6 | 60.5 | 67.1 | 66.4 | 67.2 | 71.7 | 65.0 |
| 22 | 36.5 | 43.1 | 46.3 | 38.9 | 41.6 | 45.9 | 47.2 | 42.5 |
| 23 | 60.0 | 63.2 | 72.2 | 77.2 | 71.2 | 72.1 | 76.4 | 70.7 |
| 24 | 36.5 | 29.1 | 37.0 | 41.6 | 41.7 | 39.3 | 42.5 | 39.0 |
| 25 | 53.0 | 48.7 | 53.7 | 51.7 | 48.5 | 44.3 | 53.8 | 50.2 |
| 26 | 54.8 | 48.7 | 52.5 | 61.1 | 47.7 | 50.8 | 58.5 | 52.3 |
| 27 | 29.6 | 26.5 | 29.6 | 28.2 | 31.7 | 37.7 | 27.4 | 30.4 |
| 28 | 57.4 | 50.4 | 59.3 | 59.1 | 60.0 | 37.4 | 50.0 | 55.2 |
| 29 | 41.7 | 43.6 | 45.7 | 49.7 | 45.9 | 54.9 | 39.6 | 46.1 |
| 30 | 51.3 | 44.4 | 50.0 | 52.3 | 54.1 | 56.6 | 48.1 | 51.7 |

TABLE LIX

ITEM RESPONSES ANALYSIS SHOWING PER CENT CORRECT RESPONSES OF TOTAL RESPONSES PER TEST ITEM: SEQUENTIAL TEST OF EDUCATIONAL PROGRESS, LISTENING, GRADE 11 1969-70 BY COUNTY AND REGION

| Test Item | COUNTY Berkley | Grant | Hampshire | Hardy | Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|
| | | | | PART I | | | | |
| 1 | 72.6 | 74.4 | 62.6 | 66.4 | 66.7 | 73.3 | 74.8 | 68.9 |
| 2 | 75.3 | 72.6 | 82.8 | 79.9 | 75.8 | 88.3 | 67.3 | 77.5 |
| 3 | 32.9 | 44.4 | 41.7 | 42.3 | 50.5 | 44.2 | 26.2 | 42.9 |
| 4 | 35.6 | 60.7 | 59.5 | 66.4 | 55.9 | 65.8 | 72.9 | 58.8 |
| 5 | 64.4 | 67.5 | 48.5 | 52.3 | 58.6 | 59.2 | 53.3 | 57.4 |
| 6 | 61.6 | 68.4 | 60.7 | 63.1 | 68.5 | 63.3 | 57.0 | 64.3 |
| 7 | 60.3 | 74.4 | 63.2 | 76.5 | 72.8 | 69.2 | 64.5 | 69.7 |
| 8 | 69.9 | 60.9 | 76.7 | 73.8 | 72.8 | 75.0 | 82.2 | 73.1 |
| 9 | 53.4 | 70.9 | 60.9 | 72.5 | 67.2 | 62.5 | 71.0 | 65.8 |
| 10 | 82.2 | 96.6 | 90.8 | 95.3 | 87.6 | 90.8 | 94.4 | 90.4 |
| 11 | 35.6 | 35.0 | 18.4 | 33.6 | 29.3 | 30.8 | 27.1 | 29.5 |
| 12 | 53.4 | 61.5 | 54.0 | 51.7 | 53.5 | 61.7 | 30.8 | 52.9 |
| 13 | 65.8 | 61.5 | 57.7 | 73.8 | 73.1 | 72.5 | 75.7 | 69.3 |
| 14 | 65.8 | 51.3 | 57.7 | 62.4 | 58.9 | 66.7 | 57.9 | 59.8 |
| 15 | 57.5 | 56.4 | 52.1 | 57.7 | 54.6 | 55.8 | 37.4 | 53.7 |
| 16 | 47.9 | 59.0 | 55.2 | 57.0 | 56.5 | 54.2 | 52.3 | 55.1 |
| 17 | 9.6 | 9.4 | 7.8 | 22.1 | 22.8 | 20.8 | 15.9 | 17.0 |
| 18 | 46.6 | 62.4 | 52.8 | 49.7 | 60.5 | 60.8 | 60.7 | 56.8 |
| 19 | 28.8 | 41.9 | 43.6 | 45.0 | 45.2 | 46.7 | 39.3 | 42.6 |
| 20 | 72.6 | 70.1 | 80.4 | 77.9 | 77.7 | 79.2 | 73.8 | 76.6 |
| 21 | 52.1 | 59.8 | 49.7 | 57.7 | 54.6 | 55.0 | 63.6 | 55.5 |
| 22 | 24.7 | 23.9 | 11.7 | 18.1 | 25.3 | 20.8 | 23.4 | 21.6 |
| 23 | 74.0 | 70.1 | 60.1 | 69.8 | 61.6 | 58.3 | 67.3 | 64.8 |
| 24 | 27.4 | 14.5 | 26.4 | 27.5 | 24.2 | 20.8 | 29.0 | 24.4 |

TABLE LIX (CONT.)

| Test Item | Berkley | Grant | Hampshire | COUNTY Hardy | Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|
| 25 | 57.5 | 47.0 | 54.0 | 43.6 | 51.1 | 50.0 | 40.2 | 49.6 |
| 26 | 68.3 | 63.2 | 50.3 | 62.4 | 58.6 | 63.3 | 53.3 | 59.4 |
| 27 | 64.4 | 54.9 | 49.7 | 59.7 | 57.8 | 54.2 | 56.1 | 56.7 |
| 28 | 53.4 | 52.1 | 36.2 | 47.0 | 40.6 | 35.8 | 41.1 | 42.8 |
| 29 | 36.5 | 43.6 | 45.4 | 55.7 | 50.8 | 53.3 | 56.1 | 49.2 |
| 30 | 33.9 | 43.6 | 47.2 | 58.4 | 49.2 | 52.5 | 50.5 | 48.5 |
| 31 | 72.6 | 67.5 | 63.8 | 69.1 | 62.9 | 60.0 | 67.3 | 65.4 |
| 32 | 53.4 | 42.7 | 52.8 | 55.0 | 52.2 | 45.8 | 51.4 | 51.1 |
| 33 | 86.3 | 84.6 | 68.1 | 81.2 | 74.2 | 74.2 | 85.0 | 76.5 |
| 34 | 87.7 | 86.3 | 81.6 | 71.8 | 84.4 | 86.7 | 84.1 | 83.1 |
| 35 | 56.2 | 48.7 | 40.5 | 61.7 | 51.1 | 46.7 | 55.1 | 51.2 |
| 36 | 32.9 | 30.8 | 32.5 | 43.0 | 36.8 | 28.3 | 24.3 | 33.9 |
| | | | | PART II | | | | |
| 1 | 72.6 | 84.6 | 72.4 | 83.9 | 79.3 | 65.0 | 86.0 | 77.9 |
| 2 | 65.8 | 80.3 | 72.4 | 78.5 | 71.0 | 64.2 | 84.1 | 73.1 |
| 3 | 49.3 | 46.2 | 28.2 | 34.2 | 35.2 | 29.2 | 25.2 | 35.1 |
| 4 | 82.2 | 79.5 | 65.6 | 87.9 | 80.1 | 73.3 | 81.3 | 78.6 |
| 5 | 80.8 | 84.6 | 82.2 | 81.2 | 83.1 | 83.3 | 86.0 | 82.9 |
| 6 | 40.0 | 57.3 | 54.0 | 60.4 | 56.7 | 53.3 | 67.3 | 55.8 |
| 7 | 45.2 | 33.8 | 55.8 | 68.5 | 56.2 | 47.5 | 63.6 | 54.1 |
| 8 | 72.6 | 82.1 | 67.5 | 81.9 | 74.5 | 80.0 | 93.5 | 77.4 |
| 9 | 50.7 | 12.0 | 42.3 | 57.0 | 61.0 | 47.5 | 59.8 | 50.1 |
| 10 | 54.8 | 59.0 | 54.0 | 46.3 | 50.5 | 51.7 | 44.9 | 51.4 |
| 11 | 34.2 | 43.6 | 28.8 | 36.9 | 39.2 | 39.2 | 44.9 | 38.8 |
| 12 | 79.5 | 74.4 | 75.5 | 75.8 | 76.6 | 52.5 | 82.2 | 74.4 |
| 13 | 27.4 | 34.2 | 30.7 | 33.6 | 31.2 | 33.3 | 19.6 | 30.5 |
| 14 | 27.4 | 29.9 | 19.6 | 32.2 | 31.5 | 19.2 | 28.0 | 29.1 |

TABLE LIX (CONT.)

| Test Item | Berkley | Grant | Hampshire | COUNTY Hardy | Mineral | Morgan | Pendleton | Region |
|---|---|---|---|---|---|---|---|---|
| 15 | 32.9 | 52.1 | 42.9 | 44.3 | 46.5 | 41.7 | 45.8 | 44.3 |
| 16 | 54.8 | 45.3 | 32.5 | 36.2 | 36.3 | 34.2 | 28.0 | 37.6 |
| 17 | 57.5 | 59.0 | 69.3 | 69.1 | 66.4 | 70.0 | 68.2 | 56.3 |
| 18 | 82.2 | 62.4 | 46.0 | 55.7 | 60.8 | 67.5 | 61.7 | 61.2 |
| 19 | 4.1 | 89.7 | 79.1 | 91.9 | 84.9 | 81.7 | 88.8 | 77.3 |
| 20 | 69.9 | 12.0 | 9.2 | 8.7 | 9.1 | 14.2 | 11.2 | 70.3 |
| 21 | 61.6 | 82.9 | 63.8 | 81.2 | 79.8 | 75.0 | 75.7 | 75.3 |
| 22 | 60.3 | 71.8 | 69.3 | 73.2 | 74.2 | 63.3 | 71.0 | 70.3 |
| 23 | 54.8 | 62.4 | 54.0 | 62.4 | 61.6 | 56.7 | 65.4 | 59.9 |
| 24 | 32.9 | 64.1 | 61.3 | 61.7 | 61.0 | 61.7 | 72.9 | 59.8 |
| 25 | 35.6 | 36.8 | 36.2 | 37.6 | 42.5 | 29.2 | 36.4 | 37.7 |
| 26 | 74.0 | 40.2 | 34.4 | 39.6 | 40.6 | 41.7 | 43.0 | 43.3 |
| 27 | 32.9 | 68.4 | 70.6 | 65.8 | 68.3 | 55.8 | 80.4 | 64.5 |
| 28 | 84.9 | 31.6 | 39.3 | 36.9 | 38.2 | 44.2 | 38.3 | 42.9 |
| 29 | 82.2 | 85.5 | 55.2 | 74.5 | 81.5 | 70.0 | 79.4 | 75.9 |
| 30 | 68.5 | 68.4 | 55.2 | 73.2 | 70.4 | 66.7 | 66.4 | 67.4 |
| 31 | 76.7 | 82.9 | 69.9 | 77.9 | 69.1 | 58.2 | 68.2 | 68.9 |
| 32 | 19.2 | 66.7 | 44.8 | 62.4 | 65.6 | 55.8 | 72.0 | 57.1 |
| 33 | 49.3 | 35.0 | 25.8 | 28.2 | 26.9 | 26.7 | 28.0 | 22.0 |
| 34 | 49.3 | 50.4 | 34.4 | 42.3 | 51.9 | 32.5 | 63.6 | 48.1 |
| 35 | 68.5 | 69.2 | 55.2 | 63.1 | 68.3 | 56.6 | 72.9 | 65.1 |
| 36 | 63.0 | 80.3 | 62.0 | 63.8 | 67.1 | 90.0 | 66.4 | 69.2 |

# APPENDIX B

## Summary of the Associations Existing Between the CEP-EMO's and the State-County Testing Program

TABLE LX

A SUMMARY OF THE ASSOCIATIONS EXISTING BETWEEN CEP-EMO'S AND THE STANFORD ACHIEVEMENT TEST ITEMS: GRADES 3 AND 6, ARITHMETIC

| Expected Measurable Outcomes | Test Items | | | | |
|---|---|---|---|---|---|
| | Grade 3 | | Grade 6 | | |
| | Arith.Comp. | Arith.Conc. | Arith.Comp. | Arith Conc. | Arith Appl. |
| 1. Makes statements, gives examples and states definitions in mathematical terminology. | 1-60 | None | None | None | None |
| 2. Recalls and uses facts, terms, and symbols related to a process. | None | 1,5-8,11-38,41-46 | 1-39 | 2-32 | 1-11,14-16, 18-36,38,39 |
| 3. States an idea in mathematical terminology. | None | None | None | 2 | None |
| 4. Distinguishes between the properties of numbers, sets, and geometric ideas and forms | None | 4 | None | 4 | None |
| 5. Identifies and clarifies a concept to make logical implications. | None | None | None | 1 | None |
| 6. Applies known facts to a new problem situation. | None | 1,15-17 | None | 19,20, 29,30 | 2 |
| 7. Discovers generalizations by extending a concept. | None | 22,24 | None | 13 | None |
| 8. Justifies a generalization by stating logical reasons for each step of justification. | None | None | None | None | None |
| 9. Identifies the basic terms and basic assumptions of the system. | None | None | None | None | None |
| 10. States definitions of basic terms in his own vocabulary. | None | None | None | None | None |
| 11. Lists the basic requirements of a mathematical system. | None | None | None | None | None |
| 12. Utilizes the basic assumptions and definitions to justify proofs. | None | None | None | None | None |
| 13. Constructs mathematical systems based on a set of elements and binary operations. | None | None | None | None | None |
| 14. Utilizes manipulative materials and models. | None | None | None | None | None |
| 15. Records memorized facts to find solutions. | 42,44,46, 48,50,52-60 | None | 13,15,18-23,30,34 | None | None |

TABLE LX (Cont.)

| Expected Measurable Outcomes | Test Items: Grade 3 Arith.Comp. | Grade 3 Arith.Conc. | Grade 6 Arith.Comp. | Grade 6 Arith.Conc. | Grade 6 Arith.Appl. |
|---|---|---|---|---|---|
| 16. Uses a known fact related to the problem. | 1-60 | 1,3,10,25-38,41-43,45,46 | 1-39 | 1-9,11,12,14-20,22,24,30 | 1-3,5-11,16,20-29,33-36,38,39 |
| 17. Employs meaningful shortcut. | None | None | None | None | None |
| 18. Illustrates the process by using a model or manipulative devices. | None | None | None | None | None |
| 19. Estimates the result to aid finding the solution. | None | None | None | 4,31 | None |
| 20. Justifies each step of the computation by identifying the properties used. | None | None | None | None | None |
| 21. Relates the algorithm to properties of the operation. | None | None | None | None | None |
| 22. Writes a justification of the algorithm. | None | None | None | None | None |
| 23. Uses an operation to establish a mathematics structure. | None | None | None | None | None |
| 24. Invents a new operation and investigates its properties. | None | None | None | None | None |
| 25. Identifies the question to be answered in the context of the problem situation. | None | 25-46 | None | 1,2,9,18,19 | 1-3,9,18,20,24,25,27-29,33,38,39 |
| 26. Selects relevant information needed to solve the problem | None | 2,25,32,36,38-42,45,46 | None | None | 12-15,17,14,22,26,30-32,34,37 |
| 27. Relates the problem to a similar situation which supplies insight to the solution. | None | None | None | None | None |
| 28. Constructs a diagram of the relationships and processes involved. | None | None | None | None | None |
| 29. Generalizes the solution for similar situations. | None | None | None | None | None |
| 30. Uses concepts of measurement to construct a model of the situation. | None | 9 | None | None | None |
| 31. States a generalization about the data and constructs a table of the data. | None | None | None | None | None |
| 32. Builds a vocabulary of necessary mathematical terms and symbols. | None | None | None | None | None |

TABLE LX (Cont.)

| Expected Measurable Outcomes | Test Items: Grade 3 Arith.Comp. | Grade 3 Arith.Conc. | Grade 6 Arith.Comp. | Grade 6 Arith.Conc. | Grade 6 Arith.Appl. |
|---|---|---|---|---|---|
| 33. Is precise when participating in class discussions. | None | None | None | None | None |
| 34. Reads mathematics material and communicates information in his own vocabulary. | None | None | None | None | None |
| 35. Writes precise definitions of mathematics terms. | None | None | None | None | None |
| 36. Writes an organized solution to a problem. | None | None | None | None | None |
| 37. Identifies conditions in a problem situation. | None | None | None | None | None |
| 38. Completes assignments promptly and correctly. | None | None | None | None | None |
| 39. Researches outside sources for information not in basal textbook. | None | None | None | None | None |
| 40. Plans time, materials, and place of study. | None | None | None | None | None |
| 41. Asks questions of himself and others when difficulties cannot be resolved independently. | None | None | None | None | None |
| 42. Continues to pursue the study of mathematics or a related field at an advanced level. | None | None | None | None | None |
| 43. Participates in the learning process with the class. | None | None | None | None | None |
| 44. Shows confidence in and respect for mathematics courses, the teachers, and current class activities. | None | None | None | None | None |
| 45. Completes optional assignments outside class time. | None | None | None | None | None |
| 46. Participates in activities and discussions outside the classroom. | None | None | None | None | None |
| 47. Explores mathematical ideas independently. | None | None | None | None | None |

TABLE LXI

A SUMMARY OF THE ASSOCIATIONS EXISTING BETWEEN CEP-EMO'S AND THE SEQUENTIAL TEST OF EDUCATIONAL PROGRESS ITEMS: GRADE 9&11, ARITHMETIC

| Expected Measurable Outcomes | Test Items | | | |
|---|---|---|---|---|
| | Grade 9 | | Grade 11 | |
| | Part I | Part II | Part I | Part II |
| 1. Makes statements, gives examples and states definitions in mathematical terminology. | None | None | None | None |
| 2. Recalls and uses facts, terms, and symbols related to a process. | 1-7,9,13-15,22,23 | 4,6,7,9-12,17,21, 22,25 | 1,2,4,6,8, 9,11-15,17, 18,21,22,25 | 2,4-7,9, 10,14-19, 23-25 |
| 3. States an idea in mathematical terminology | 17-19 | 23 | 25 | 2,25 |
| 4. Distinguishes between the properties of numbers, sets, and geometric ideas and forms. | 10,21,24, 25 | 8 | 19 | None |
| 5. Identifies and clarifies a concept to make logical implications. | None | None | 1,4,5 | 18 |
| 6. Applies known facts to a new problem situation. | 1-5,8,9, 11,12,16, 20 | 5,13,15 | 10 | None |
| 7. Discovers generalizations by extending a concept. | None | None | None | None |
| 8. Justifies a generalization by stating logical reasons for each step of justification. | None | None | None | 22 |
| 9. Identifies the basic terms and basic assumptions of the system. | None | None | None | None |
| 10. States definitions of basic terms in his own vocabulary. | None | None | None | None |
| 11. Lists the basic requirements of a mathematical system. | None | None | None | None |
| 12. Utilizes the basic assumptions and definitions to justify proofs. | None | None | None | None |
| 13. Constructs mathematical systems based on a set of elements and binary operations. | None | None | None | None |
| 14. Utilizes manipulative materials and models | None | None | None | None |
| 15. Records memorized facts to find solutions. | None | None | None | None |

TABLE LXI(Cont.)

| Expected Measurable Outcomes | Test Items | | | |
|---|---|---|---|---|
| | Grade 9 | | Grade 11 | |
| | Part I | Part II | Part I | Part II |
| 16. Uses a known fact related to the problem. | 1-5,9,11-16,20,22-24 | None | 1,4,6,8,10,11,14,17,18,21,22 | 1,4-6,8,9,11-13,23-25 |
| 17. Employs meaningful shortcut. | None | None | None | None |
| 18. Illustrates the process by using a model or manipulative devices. | None | None | None | None |
| 19. Estimates the result to aid finding the solution. | 6,7 | 19 | None | None |
| 20. Justifies each step of the computation by identifying the properties used. | None | None | None | None |
| 21. Relates the algorithm to properties of the operation. | None | None | None | None |
| 22. Writes a justification of the algorithm. | None | None | None | None |
| 23. Uses an operation to establish a mathematics structure. | None | None | None | None |
| 24. Invents a new operation and investigates its properties. | None | None | None | None |
| 25. Identifies the question to be answered in the context of the problem situation. | 1-12,16,20,22,24,25 | 1-7,9-16,18,21,22,24,25 | 1-4,6-15,17-25 | 1,3-11,14-19,24,25 |
| 26. Selects relevant information needed to solve the problem. | 1,5-8,11,20,23,25 | 1-7,9-14,16,18,21,22,24,25 | 1-3,5-9,12-16,19-24 | 3,4,6,7,10-15,20,21,23,24 |
| 27. Relates the problem to a similar situation which supplies insight to the solution. | None | None | None | None |
| 28. Constructs a diagram of the relationships and processes involved. | None | None | None | None |
| 29. Generalizes the solution for similar situations. | 4 | None | None | None |
| 30. Uses concepts of measurement to construct a model of the situation. | None | None | None | None |
| 31. States a generalization about the data and constructs a table of the data. | None | None | None | None |

TABLE LXI (Cont.)

| Expected Measurable Outcomes | Test Items: Grade 9 Part I | Grade 9 Part II | Grade 11 Part I | Grade 11 Part II |
|---|---|---|---|---|
| 32. Builds a vocabulary of necessary mathematical terms and symbols. | None | None | None | None |
| 33. Is precise when participating in class discussions. | None | None | None | None |
| 34. Reads mathematics material and communicates information in his own vocabulary. | None | None | None | None |
| 35. Writes precise definitions of mathematics terms. | None | None | None | None |
| 36. Writes an organized solution to a problem. | None | None | None | None |
| 37. Identifies conditions in a problem situation. | None | None | None | None |
| 38. Completes assignments promptly and correctly. | None | None | None | None |
| 39. Researches outside sources for information not in basal textbook. | None | None | None | None |
| 40. Plans time, materials, and place of study. | None | None | None | None |
| 41. Asks questions of himself and others when difficulties cannot be resolved independently. | None | None | None | None |
| 42. Continues to pursue the study of mathematics or a related field at an advanced level. | None | None | None | None |
| 43. Participates in the learning process with the class. | None | None | None | None |
| 44. Shows confidence in and respect for mathematics courses, the teachers, and current class activities. | None | None | None | None |
| 45. Completes optional assignments outside class time. | None | None | None | None |
| 46. Participates in activities and discussions outside the classroom. | None | None | None | None |
| 47. Explores mathematical ideas independently. | None | None | None | None |

TABLE LXII

A SUMMARY OF THE ASSOCIATIONS EXISTING BETWEEN CEP-EMO'S AND THE STANFORD ACHIEVEMENT TEST ITEMS: GRADE 3, LANGUAGE ARTS

| Expected Measurable Outcomes | Word Meaning | Paragraph Meaning | Spelling | Word Study Skills Part A | Word Study Skills Part B | Language Usage Part A | Language Usage Part B |
|---|---|---|---|---|---|---|---|
| 1. The learner is formulating a philosophy of the importance of language in the solution of national and international problems, and can state with confidence and with consideration his feelings, opinions and ideas in writing and in speaking during individual conferences, during group discussion and during large groups instructional sessions. | None | None | None | None | None | None | None |
| 2. The learner recognizes the significance of differences in dialects (personal speech patterns, i.e., vernacular, lingo, jargon, slang, regional language, social language) as the learner relates to persons or populations and can identify at least three dialects and detect the likenesses and the differences. | None | None | None | 1-30 | None | None | None |
| 3. The learner makes appropriate choices of dialects and each choice is demonstrated by his ability to communicate effectively in writing and in speaking to the class, to small groups within the class and to designated group of individual audiences. | None | None | None | None | None | None | None |
| 4. The learner translates dialects to function for his economically, socially and culturally as demonstrated by his successful communication with those of different dialects. | None | None | None | None | None | None | None |
| 5. The learner contrasts and studies the trends and influences which have caused the language to evolve and demonstrates his knowledge by writing an assigned paper on "The History of The English Language". | None | None | None | None | None | None | None |
| 6. The learner analyzes the variability of language design and transforms sentences and paragraphs to convey ideas. | None | None | None | None | None | 1-40 | 41-75 |
| 7. The learner encodes orally the ideas from a drama or a poem with such a degree of feeling that listeners can decode the ideas in like form. | None | None | None | None | None | None | None |
| 8. The learner reads historical and modern literature of varied cultures appropriate to his ability, needs and desires as determined by an investory or profile. | None | None | None | None | None | None | None |
| 9. The learner locates and notes pertinent literature to clarify, support, and/or disprove his ideas. | 1-36 | 1-60 | None | 1-30 | 31-64 | None | 41-75 |

TABLE LXII (Cont.)

| Expected Measurable Outcomes | Word Meaning | Paragraph Meaning | Spelling | Word Study Skills Part A | Word Study Skills Part B | Language Usage Part A | Language Usage Part B |
|---|---|---|---|---|---|---|---|
| 10. The learner continuously records his own writings, retains them and evaluates growth by comparing them to his former writings, writings of his comparable performance and other authors. | None | None | None | None | None | None | None |
| 11. The learner discriminates types of information in mass media (television, radio, newspaper, magazine,books, motion pictures, plays and advertising) as to whether the information is fact, opinion or fiction. | 1-36 | 1-60 | None | 1-30 | 31-64 | None | 41-75 |
| 12. The learner selects and compares values found in historical literature with modern literature and reacts to the events of the time. | None | None | None | None | None | None | None |
| 13. The learner's attitudes toward others are in part a reflection of his ability to select and synthesize concepts evolving from literature. | 1-36 | 1-60 | None | 1-30 | 31-64 | None | 41-75 |
| 14. The learner presents selections from all forms of literature demonstrating the range of emotions. | None | None | None | None | None | None | None |
| 15. The learner writes his ideas, views and opinions in a form and style acceptable to him and his readers. | None | None | 1-30 | None | None | None | None |
| 16. The learner writes ideas, views and opinions about situations, events or persons and can identify the most effective and appropriate form (narrative, descriptive, expository or argumentative) being used. | None | None | None | None | None | None | None |
| 17. The learner shows his ability to empathize with a writer by being able to emulate the writer's style and field. | None | None | None | None | None | None | None |
| 18. The learner exhibits a desire to write by composing on paper without topic direction both during assigned periods of time and without assignment. | None | None | None | None | None | None | None |
| 19. The learner shows objectivity in writing by discarding his preferred form and selecting the form that most expresses the demands of a situation. | None | None | None | None | None | None | None |
| 20. The learner recognizes writing as a tool of communication he can use to express the ideas, views and opinions of others even through they may be in conflict with his own. | None | None | None | None | None | None | None |
| 21. The learner originates spontaneous oral composition from the dialogue of small groups and writes that composition in a form legible to himself and others. | None | None | None | None | None | None | None |

TABLE LXIII

A SUMMARY OF THE ASSOCIATIONS EXISTING BETWEEN CEP-EMO'S AND THE STANFORD ACHIEVEMENT TEST ITEMS: GRADE 6, LANGUAGE ARTS

| Expected Measurable Outcomes | Stanford Achievement Test | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Word Meaning | Paragraph Meaning | Spelling | Language Part A | Part B | Part C | Part D | Part E |
| 1. The learner is formulating a philosophy of the importance of language in the solution of national and international problems, and can state with confidence and with consideration his feelings, opinions and ideas in writing and in speaking during individual conferences, during group discussion and during large groups instructional sessions. | None | None | None | None | None | None | None | None |
| 2. The learner recognizes the significance of differences in dialects (personal speech patterns, i.e., vernacular, lingo, jargon, slang, regional language, social language) as the learner relates to persons or populations and can identify at least three dialects and detect the likenesses and the differences. | None | None | None | None | None | None | None | None |
| 3. The learner makes appropriate choices of dialects and each choice is demonstrated by his ability to communicate effectively in writing and in speaking to the class, to small groups within the class and to designated group of individual audiences. | None | None | None | None | None | None | None | None |
| 4. The learner translates dialects to function for his economically, socially and culturally as demonstrated by his successful communication with those of different dialects. | None | None | None | None | None | None | None | None |
| 5. The learner contrasts and studies the trends and influences which have caused the language to evolve and demonstrates his knowledge by writing an assigned paper on "The History of the English Language." | None | None | None | None | None | None | None | None |
| 6. The learner analyzes the variability of language design and transforms sentences and paragraphs to convey ideas. | None | None | None | 1-38 | 39-56 | 57-74 | None | 117-134 |
| 7. The learner encodes orally the ideas from a drama or a poem with such a degree of feeling that listeners can decode the ideas in like form. | None | None | None | None | None | None | None | None |
| 8. The learner reads historical and modern literature of varied cultures appropriate to his ability, needs and desires as determined by an inventory or profile. | None | None | None | None | None | None | None | None |
| 9. The learner locates and notes pertinent literature to clarify support, and/or disprove his ideas. | 1-48 | 1-64 | None | None | None | None | 93-116 | None |

TABLE LXIII (CONT.)

| Expected Measurable Outcomes | Stanford Achievement Test | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Word Meaning | Paragraph Meaning | Spelling | Language Part A | Part B | Part C | Part D | Part E |
| 10. The learner continuously records his own writings, retains them and evaluates growth by comparing them to his former writings, writings of his comparable performance and other authors. | None | None | None | None | None | None | None | None |
| 11. The learner discriminates types of information in mass media (television, radio, newspaper, magazine, books, motion pictures, plays and advertising) as to whether the information is fact, opinion or fiction. | 1-48 | 1-64 | None | 1-38 | None | None | 93-116 | 117-134 |
| 12. The learner selects and compares values found in historical literature with modern literature and reacts to the events of the time. | None | None | None | None | None | None | None | None |
| 13. The learner's attitudes toward others are in part a reflection of his ability to select and synthesize concepts evolving from literature. | 1-48 | 1-64 | None | 1-38 | None | None | 93-116 | 117-134 |
| 14. The learner presents selections from all forms of literature demonstrating the range of emotions. | None | None | None | None | None | None | None | None |
| 15. The learner writes his ideas, views and opinions in a form and style acceptable to him and his readers. | None | None | 1-56 | None | None | None | None | None |
| 16. The learner writes ideas, views and opinions about situations, events or persons and can identify the most effective and appropriate form (narrative, descriptive, expository or argumentative) being used. | None | None | None | None | None | None | None | None |
| 17. The learner shows his ability to empathize with a writer by being able to emulate the writer's style and field. | None | None | None | None | None | None | None | None |
| 18. The learner exhibits a desire to write by composing on paper without topic direction both during assigned periods of time and without assignment. | None | None | None | None | None | None | None | None |
| 19. The learner shows objectivity in writing by discarding his preferred form and selecting the form that most expresses the demands of a situation. | None | None | None | None | None | None | None | None |
| 20. The learner recognizes writing as a tool of communication he can use to express the ideas, views and opinions of others even though they may be in conflict with his own. | None | None | None | None | None | None | None | None |
| 21. The learner originates spontaneous oral composition from the dialogue of small groups and writes that composition in a form legible to himself and others. | None | None | None | None | None | None | None | None |

TABLE LXIV

A SUMMARY OF THE ASSOCIATIONS EXISTING BETWEEN CEP-EMO'S AND THE SEQUENTIAL TEST OF EDUCATIONAL PROGRESS ITEMS: GRADE 9, LANGUAGE ARTS

| Expected Measurable Outcome | Sequential Test of Educational Progress: Reading Part I | Reading Part II | Writing Part I | Writing Part II |
|---|---|---|---|---|
| 1. The learner is formulating a philosophy of the importance of language in the solution of national and international problems, and can state with confidence and with consideration his feelings, opinions and ideas in writing and in speaking during individual conferences, during group discussion and during large groups instructional sessions. | None | None | None | None |
| 2. The learner recognizes the significance of differences in dialects (personal speech patterns, i.e., vernacular, lingo, jargon, slang, regional language, social language) as the learner relates to persons or populations and can identify at least three dialects and detect the likeness and the differences. | None | None | None | None |
| 3. The learner makes appropriate choices of dialects and each choice is demonstrated by his ability to communicate effectively in writing and in speaking to the class, to small groups within the class and to designated group or individual audiences. | None | None | None | None |
| 4. The learner translates dialects to function for him economically, socially and culturally as demonstrated by his successful communication with those of different dialects. | None | None | None | None |
| 5. The learner contrasts and studies the trends and influences which have caused the language to evolve and demonstrates his knowledge by writing an assigned paper on "The History of the English Language". | None | None | None | None |
| 6. The learner analyzes the variability of language design and transforms sentences and paragraphs to convey ideas. | None | None | None | None |
| 7. The learner encodes orally the ideas from a drama or a poem with such a degree of feeling that listeners can decode the ideas in like form. | None | None | None | None |
| 8. The learner reads historical and modern literature of varied cultures appropriate to his ability, needs and desires as determined by an inventory or profile. | None | None | None | None |

TABLE LXIV (CONT.)

| Expected Measurable Outcomes | Sequential Test of Educational Progress: Reading Part I | Reading Part II | Writing Part I | Writing Part II |
|---|---|---|---|---|
| 9. The learner locates and notes pertinent literature to clarify, support, and/or disprove his ideas. | 1,6,11,12, 17,22,30, 31 | 2,6,7,16, 21,26,31 | 4-6,12-14,16-18, 21,23,24, 26-29 | 2-5,7,9,10, 15,20,22, 24,25,29,30 |
| 10. The learner continuously records his own writings, retains them and evaluates growth by comparing them to his former writings, writings of his comparable performance peers and other authors. | None | None | None | None |
| 11. The learner discriminates types of information in mass media (television, radio, newspaper, magazine, books, motion pictures, plays and advertising) as to whether the information is fact, opinion or fiction. | 1,6,7,11, 12,14,15, 17,19,21, 22,23,30, 31,33,35 | 2,6,7,11, 14,16,18, 21,24,25, 26,31 | 4-6,12-14,16-18, 21,23,24, 26-29 | 2-5,7,9,10, 15,20,22, 24,25,29,30 |
| 12. The learner selects and compares values found in historical literature with modern literature and reacts to the events of the time. | 3,4,10,13, 20,25,26 | 15,20,23, 30,32 | None | None |
| 13. The learner's attitudes toward others are in part a reflection of his ability to select and synthesize concepts evolving from literature. | 2-10,13-16, 18-21,23-29,32-35 | 1,3-5,8-15,17-20, 22-25,27-30,32-35 | 1,2,4-11, 13-15,17-23,25-28, 30 | 1,3-6,8-24, 26-30 |
| 14. The learner presents selections from all forms of literature demonstrating the range of emotions. | None | None | None | None |
| 15. The learner writes his ideas, views and opinions in a form and style acceptable to him and his readers. | None | None | 1-3,7,8, 11,12,19, 20,25,29, 30 | 6,8,11-14, 16-19,21, 23,27,28 |
| 16. The learner writes ideas, views and opinions about situations, events or persons and can identify the most effective and appropriate form (narrative, descriptive, expository or argumentative) being used. | None | None | 2,4,6,7,9, 10,13,14, 15,17-23,25-28,30 | 1,3,4,5,8-13,15-20, 22,24,26-30 |
| 17. The learner shows his ability to empathize with a writer by being able to emulate the writer's style and field. | None | None | None | None |
| 18. The learner exhibits a desire to write by composing on paper without topic direction both during assigned periods of time and without assignment. | None | None | None | None |
| 19. The learner shows objectivity in writing by discarding his preferred form and selecting the form that most expresses the demands of a situation. | None | None | None | None |

TABLE LXIV (CONT.)

| Expected Measurable Outcomes | Sequential Test of Educational Progress: Reading Part I | Reading Part II | Writing Part I | Writing Part II |
|---|---|---|---|---|
| 20. The learner recognizes writing as a tool of communication he can use to express the ideas, views and opinions of others even though they may be in conflict with his own. | None | None | None | None |
| 21. The learner originates spontaneous oral composition from the dialogue of small groups and writes the composition in a form legible to himself and others. | None | None | None | None |

TABLE LXV

A SUMMARY OF THE ASSOCIATIONS EXISTING BETWEEN CEP-EMO'S AND THE SEQUENTIAL TEST OF EDUCATIONAL PROGRESS ITEMS: GRADE 11, LANGUAGE ARTS

| Expected Measurable Outcomes | Sequential Test of Educational Progress: Reading Part I | Reading Part II | Writing Part I | Writing Part II |
|---|---|---|---|---|
| 1. The learner is formulating a philosophy of the importance of language in the solution of national and international problems, and can state with confidence and with consideration his feelings, opinions and ideas in writing and in speaking during individual conferences, during group discussion and during large groups instructional sessions. | None | None | None | None |
| 2. The learner recognizes the significance of differences in dialects (personal speech patterns, i.e., vernacular, lingo, jargon, slang, regional language, social language) as the learner relates to persons or populations and can identify at least three dialects and detect the likeness and the differences. | None | None | None | None |
| 3. The learner makes appropriate choices of dialects and each choice is demonstrated by his ability to communicate effectively in writing and in speaking to the class, to small groups within the class and to designated group or individual audiences. | None | None | None | None |
| 4. The learner translates dialects to function for him economically, socially and culturally as demonstrated by his successful communication with those of different dialects. | None | None | None | None |
| 5. The learner contrasts and studies the trends and influences which have caused the language to evolve and demonstrates his knowledge by writing an assigned paper on "The History of the English Language". | None | None | None | None |
| 6. The learner analyzes the variability of language design and transforms sentences and paragraphs to convey ideas. | None | None | None | None |
| 7. The learner encodes orally the ideas from a drama or a poem with such a degree of feeling that listeners can decode the ideas in like form. | None | None | None | None |
| 8. The learner reads historical and modern literature of varied cultures appropriate to his ability, needs and desires as determined by an inventory or profile. | None | None | None | None |

TABLE LXV (Cont.)

| Expected Measurable Outcomes | Sequential Test of Educational Progress: Reading Part I | Reading Part II | Writing Part I | Writing Part II |
|---|---|---|---|---|
| 9. The learner locates and notes pertinent literature to clarify, support, and/or disprove his ideas. | 2,6,14,16, 17,21,26, 31 | 9,11,13,16, 22,26,27,31 | 1,2,4,6,7, 9-11,13, 16-19,21, 25,26 | 1,3,4,6,9, 11-14,17, 18,23-26,30 |
| 10. The learner continuously records his own writings, retains them and evaluates growth by comparing them to his former writings, writings of his comparable performance peers and other authors. | None | None | None | None |
| 11. The learner discriminates types of information in mass media (television, radio, newspaper, magazine, books, motion pictures, plays and advertising) as to whether the information is fact, opinion or fiction. | 2,4-6,12, 14,16,17, 21,22,24, 26,27,31, 35 | 2,6,7,9,11-13,16,22, 25-28,31,34 | 1,2,4,6,7, 9-11,13, 16-19,21, 25,26 | 1,3,4,9,11-14,17,18, 23-26,30 |
| 12. The learner selects and compares values found in historical literature with modern literature and reacts to the events of the time. | 7,9,11,19, 30,34 | 5,10,15,17, 18,20,23,32, 33 | None | None |
| 13. The learner's attitudes toward others are in part a reflection of his ability to select and synthesize concepts evolving from literature. | 1,3-5,7-13, 15-20,22-25,27-30, 32-35 | 1-8,10-12, 14,15,17-21, 23-25,28-30, 32-35 | 1-3,5-8, 10-12,14-30 | 2-5,7-16,19-22,24-29 |
| 14. The learner presents selections from all forms of literature demonstrating the range of emotions. | None | None | None | None |
| 15. The learner writes his ideas, views and opinions in a form and style acceptable to him and his readers. | None | None | 3,8,12,14, 15,22,23, 27 | 5,7,10,27, 30 |
| 16. The learner writes ideas, views and opinions about situations, events or persons and can identify the most effective and appropriate form (narrative, descriptive, expository or argumentative) being used. | None | None | 1,2,5-7, 15,20,21, 24-26,28-30 | 2-5,7-14, 16,19-22, 28,29 |
| 17. The learner shows his ability to empathize with a writer by being able to emulate the writer's style and field. | None | None | None | None |
| 18. The learner exhibits a desire to write by composing on paper without topic direction both during assigned periods of time and without assignment. | None | None | None | None |
| 19. The learner shows objectivity in writing by discarding his preferred form and selecting the form that most expresses the demands of a situation. | None | None | None | None |

TABLE LXV (CONT.)

| Expected Measurable Outcomes | Sequential Test of Educational Progress: Reading Part I | Reading Part II | Writing Part I | Writing Part II |
|---|---|---|---|---|
| 20. The learner recognizes writing as a tool of communication he can use to express the ideas, views and opinions of others even though they may be in conflict with his own. | None | None | None | None |
| 21. The learner originates spontaneous oral composition from the dialogue of small groups and writes the composition in a form legible to himself and others. | None | None | None | None |

TABLE LXVI

A SUMMARY OF THE ASSOCIATIONS EXISTING BETWEEN CEP-EMO'S AND THE STANFORD ACHIEVEMENT TEST ITEMS: GRADE 3, SCIENCE

| Expected Measurable Outcome Elementary Level* | Test Items |
|---|---|
| 1. Demonstrates his ability to interpret information presented in graphs, charts, diagrams and formulas. | None |
| 2. Lists in detail observable characteristics of a given phenomenon. | None |
| 3. Makes a reasonable conclusion or recognizes trends in a set of data. | 1-38 |
| 4. Identifies the factor most likely to have caused a given change in a system. | None |
| 5. Recognizes the tentative nature of scientific theories and conclusions. | None |
| 6. Listens to or reads evidence supporting ideas contrary to his own personal opinions. | 31 |
| 7. Exhibits a reluctancy to base conclusions on a few observations. | None |
| 8. Accepts the value that there is a universal basis for cause and effect. | None |
| 9. Accepts the idea that man is capable of eventually understanding most of his environment. | None |
| 10. Manifests a willingness to consider new evidence to change opinions or conclusions and retains objectiveness when there is an element of personal pride, bias, prejudice, or ambition. | None |
| 11. Recognizes the difference between an observation and an inference. | None |
| 29. Understands the broad conceptual schemes of human physiology and its relation to health, nutrition and reproductions. | None |
| 30. Understands the conceptual model of the universe. | None |

TABLE LXVI (Cont.)

| Expected Measurable Outcomes Elementary Level* | Test Items |
|---|---|
| 31. Understands the relationship between an organism and its environment. | None |
| 32. Understands the broad conceptual schemes pertaining to conservation laws | None |
| 33. Explains scientific phenomena at an appropriate level of sophistication. | None |
| 34. Gives specific illustrations or examples of generalization. | None |
| 35. Relates new materials to previous knowledge. | None |
| 36. Describes an event or experiment using appropriate terms and language. | None |
| 37. Devises an experiment to test a hypothesis about a familiar situation. | |
| 38. Judges the relevancy of data to the immediate problem. | None |
| 50. Gives examples of some of the applications of science to life comfort and discomfort. | None |
| 51. Explains the necessity to conserve and develop natural resources. | None |
| 52. Makes suggestions as of ways to conserve and develop natural resources. | None |
| 53. Distinguishes between science and its applications. | None |
| 61. Gives attention to science-related issues. | None |
| 62. Seeks knowledge about eminent scientists and their discoveries. | None |
| 63. Seeks further knowledge of science. | None |
| 64. Exhibits a desire to know and to discover. | None |
| 65. Exhibits a degree of curiosity about nature and the universe. | None |

*EMO's 12-28, 39-49 and 54-60 are Secondary Level EMO's and are not related to grade 6 Stanford Achievement Test

TABLE LXVII

A SUMMARY OF THE ASSOCIATIONS EXISTING BETWEEN CEP-EMO'S AND THE STANFORD ACHIEVEMENT TEST ITEMS: GRADE 6, SCIENCE

| Expected Measurable Objective Elementary Level* | Test Items |
|---|---|
| 1. Demonstrates his ability to interpret information presented in graphs, charts, diagrams and formulas. | None |
| 2. Lists in detail observable characteristics of a given phenomenon. | None |
| 3. Makes a reasonable conclusion or recognizes trends in a set of data. | 1-58 |
| 4. Identifies the factor most likely to have caused a given change in a system. | None |
| 5. Recognizes the tentative nature of scientific theories and conclusions. | None |
| 6. Listens to or reads evidence supporting ideas contrary to his own personal opinions. | None |
| 7. Exhibits a reluctancy to base conclusions on a few observations. | None |
| 8. Accepts the value that there is a universal basis for cause and effect. | None |
| 9. Accepts the idea that man is capable of eventually understanding most of his environment. | None |
| 10. Manifests a willingness to consider new evidence to change opinions or conclusions and retains objectiveness when there is an element of personal pride, bias, prejudice or ambition. | None |
| 11. Recognizes the difference between an observation and an inference. | None |
| 29. Understands the broad conceptual schemes of human physiology and its relation to health, nutrition and reproductions. | None |
| 30. Understands the conceptual model of the universe. | 30 |

TABLE LXVII (Cont.)

| Expected Measurable Objective Elementary Level* | Test Items |
|---|---|
| 31. Understands the relationship between an organism and its environment. | 3,18,24,41 |
| 32. Understands the broad conceptual schemes pertaining to conservation laws. | 11 |
| 33. Explains scientific phenomena at an appropriate level of sophistication. | None |
| 34. Gives specific illustrations or examples of generalizations. | None |
| 35. Relates new materials to previous knowledge. | None |
| 36. Describes an event or experiment using appropriate terms and language. | None |
| 37. Devises an experiment to test a hypothesis about a familiar situation. | None |
| 38. Judges the relevancy of data to the immediate problem. | None |
| 50. Gives examples of some of the applications of science to life comfort and discomfort. | None |
| 51. Explains the necessity to conserve and develop natural resources. | None |
| 52. Makes suggestions as of ways to conserve and develop natural resources. | None |
| 53. Distinguishes between science and its applications. | None |
| 61. Gives attention to science-related issues. | None |
| 62. Seeks knowledge about eminent scientists and their discoveries. | None |
| 63. Seeks further knowledge of science. | None |
| 64. Exhibits a desire to know and to discover | None |
| 65. Exhibits a degree of curiosity about nature and the universe. | None |

*EMO's 12-28, 39-49 and 54-60 are Secondary Level EMO's and are not related to grade 6 Stanford Achievement Test

TABLE LXVIII

A SUMMARY OF THE ASSOCIATIONS EXISTING BETWEEN CEP-EMO'S AND THE SEQUENTIAL TEST OF EDUCATIONAL PROGRESS ITEMS: GRADE 9-11, SCIENCE

| Expected Measurable Outcomes Secondary Level*--Science | Test Items Grade 9 Part I | Grade 9 Part II | Grade 11 Part I | Grade 11 Part II |
|---|---|---|---|---|
| 12. Organizes data into meaningful form and determines the data most useful in attempting to solve a given problem and is able to translate data into graphs, tables or charts. | None | None | None | None |
| 13. Recognizes the appropriateness and limitations of measuring devices in a given situation. | None | None | None | None |
| 14. Identifies the necessary safeguards in an experimental or practical situation. | None | None | None | 14 |
| 15. Uses appropriate experimental procedures suitable to the solution of the problem and devises an experiment appropriate to the solution of the problem. | None | None | 7 | None |
| 16. Devises experiments designed to test hypothesis (causes, variables and generalizations) on the basis of qualitative and quantitative data, interprets data, modifies the approach and repeats a sufficient number of times to improve reliability. | None | None | None | None |
| 17. Demonstrates skills in manipulating laboratory equipment in solving problems, in selecting appropriate equipment and safety practices. | None | None | None | None |
| 18. Uses pertinent information, reasoning and principles to justify a prediction or course of action. | None | None | None | None |
| 19. Identifies uncontrolled variables. | None | None | None | None |
| 20. Draws a generalization and a conclusion based on data and suggested mathematics formulas or verbal generalization to summarize the relationships shown in the data. | 1,2,3,4,5, 7,9,10,12, 13,14,21, 23,27,28 | 3,4,8,19, 22,28,29 | 6,11,12,13, 15,16,17, 18,19,22, 27 | 1,2,9,21, 23,24,25, 26,28,29 |
| 21. Devises an experiment to test a hypothesis about an unfamiliar situation. | None | None | None | 27 |
| 22. Recognizes that sufficient data is or is not available to support a conclusion. | 26 | None | None | 12,17 |

TABLE LXVIII (Cont.)

| Expected Measurable Outcomes Secondary Level*--Science | Test Items Grade 9 Part I | Grade 9 Part II | Grade 11 Part I | Grade 11 Part II |
|---|---|---|---|---|
| 23. Judges the precision of a suggested answer in light of the precision of data. | None | None | None | None |
| 24. Judges whether a wuantitative answer lies outside the limits of experimental errors. | None | None | None | None |
| 25. Evaluates the relevancy of a hypothesis to a given set of data. | None | None | None | None |
| 26. Identifies procedural or logical errors in a given situation. | None | None | None | None |
| 27. Maintains an alert skepticism toward statements of authority in scientific discourse. | None | None | 4 | None |
| 28. Seeks evidence from a variety of dependable sources. | None | None | None | None |
| 39. Understands broad concepts of the particle nature of matter and the interaction of units. | None | None | None | None |
| 40. Has a broad conceptual understanding of the kinetic-molecular theory. | None | None | None | None |
| 41. Understands the concept of electromagnetic radiation and wave phenomena. | None | None | None | None |
| 42. Understands the revolutionary character of geological changes and biological development. | None | None | None | None |
| 43. Understands the equilibrium systems and the concepts of minimal energy content and random energy distribution. | None | None | None | None |
| 44. Applies knowledge gained in performing numerical operations. | None | None | None | None |
| 45. Applies relevant principles to familiar or unfamiliar situations. | None | None | None | None |
| 46. Predicts the effect of a specific change in a closed system. | None | None | None | None |
| 47. Identifies unstated assumptions involved in a conclusion or course of action in analyzing scientific materials. | None | None | None | None |
| 48. Selects a learned theory or principle that is consistent with given facts, observations, or data. | 1,2,16,19, 25,30 | 13,21,26 | 20,21 | 20,22 |

TABLE LXVIII (Cont.)

| Expected Measurable Outcomes Secondary Level*--Science | Test Items | | | |
|---|---|---|---|---|
| | Grade 9 | | Grade 11 | |
| | Part I | Part II | Part I | Part II |
| 49. Evaluates a situation by judging the appropriateness of a given prediction, conclusion or course of action. | None | None | None | None |
| 54. Gives examples of possible applications of scientific knowledge to the solution of important social problems such as overpopulation and preservation of our natural resources. | None | None | None | None |
| 55. Gives examples of application of science through medical research. | None | None | None | None |
| 56. Gives examples of changes brought about by technology and some of the problems that have resulted. | None | None | None | None |
| 57. Gives suggestions as to how scientific knowledge might help to raise universal standards of living. | None | None | None | None |
| 58. Describes the essential difference between pure and applied science. | None | None | None | None |
| 59. Identifies instances in which scientific discoveries have raised new questions. | None | None | None | None |
| 60. Gives instances in which there was a time lag between the establishment of scientific knowledge and its general acceptance by social groups. | None | None | None | None |
| 66. Knows some of the scientific projects being supported with public funds. | None | None | None | None |
| 67. Gains knowledge of contemporary scientific ideas. | None | None | None | None |
| 68. Reads scientific sections of newspapers and magazines. | None | None | None | None |
| 69. Recognizes the vocational and leisure implications of technology. | None | None | None | None |
| 70. Seeks various sources of information concerning scientific careers. | None | None | None | None |
| 71. Gives critical thought to claims of radio, television, magazines and other forms of popular scientific or pseudo scientific advertising and seeking of valid evidence. | None | None | None | None |

TABLE LXVIII (Cont.)

| Expected Measurable Outcomes Secondary Level*--Science | Test Items Grade 9 Part I | Grade 9 Part II | Grade 11 Part I | Grade 11 Part II |
|---|---|---|---|---|
| 72. Displays a deep understanding of a value system by choosing a scientific or technical career if he finds he has the talents. | None | None | None | None |
| 73. Undertakes scientific reading, experimentation or other activities on his own initiative for his own pleasure. | None | None | None | None |
| 74. Develops opinion concerning the social and moral responsibility of scientists. | None | None | None | None |
| 75. Uses the forces and materials in his environment in a manner he considers intelligent. | None | None | None | None |
| 76. Undertakes an educational program leading to an advanced degree involving original research in a scientific discipline. | None | None | None | None |
| 77. Pursues a scientific or technical career if he is capable and interested. | None | None | None | None |
| 78. Understands that science is basically an intellectual activity. | None | None | None | None |
| 79. Understands that when there is a conflict between a scientific theory and well confirmed observable facts, the great majority of scientists will reject the theory and hope (or strive) for a new theory, or a modification, in better agreement with the facts. | None | None | None | None |
| 80. Understands that no standard methods or procedures for successful scientific discovery can be identified. | None | None | None | None |
| 81. Understands that science, as a human enterprise, has self-checking methods of refining and extending its understanding of the universe, but claims no method for identifying absolute truth. | None | None | None | None |
| 82. Understands that the criteria for success in scientific achievement are basically different from those in art, religion, literature, history, or other intellectual activity. | None | None | None | None |
| 83. Understands that the methods of scientific inquiry cannot now and may never be able to settle questions in non-scientific fields such as religion and art. | None | None | None | None |

TABLE LXVIII (Cont.)

| Expected Measurable Outcomes Secondary Level*--Science | Test Items Grade 9 Part I | Grade 9 Part II | Grade 11 Part I | Grade 11 Part II |
|---|---|---|---|---|
| 84. Knows certain important historical and philosophical developments in science. | None | None | None | None |
| 85. Has an appreciation that while the intellectual activity of scientists involves much disciplined rational thought, the creative side is largely irrational and unexplained. | None | None | None | None |
| 86. Has an appreciation that scientific activity is similar to both art and philosophy in its search for order and structure. | None | None | None | None |
| 87. Recognizes that the history of science is the record of the growth of ideas about the natural environment. | None | None | None | None |
| 88. Develops the philosophy that scientists represent a typically diverse group of education people, rather than supermen or absent-minded professors. | None | None | None | None |

*Emo's 1-11, 29-38, 50-53, 61-65 are elementary level Emo's.

TABLE LXIX

A SUMMARY OF THE ASSOCIATIONS EXISTING BETWEEN CEP-EMO'S AND THE STANFORD ACHIEVEMENT TEST ITEMS: GRADE 3, SOCIAL STUDIES

| Expected Measurable Outcomes Primary Level--Social Studies | Test Items |
|---|---|
| 1. The student categorizes data in various ways, utilizing different systems of classification. | None |
| 2. The student lists those behaviors which are considered acceptable by his group or considered unacceptable by his age group. | None |
| 3. The student works effectively within groups and works independently without interferring with the goals of other individuals or the group. | None |
| 4. The student defines maps and globes as a representation of the earth or part of the earth. | None |
| 5. The student views his environment in place and time and demonstrates this view by identifying place, location and participates in planning his daily schedule. | None |
| 6. Given photographs of city street scenes, families engaged in recreation, suburban and rural homes of modern United States society, the student describes how values and beliefs are reflected in decisions families make. | None |
| 7. Given pictures of houses of two cultures, the student identifies similarities and differences in materials used, furnishings and construction. | None |

TABLE LXX

A SUMMARY OF THE ASSOCIATIONS EXISTING BETWEEN CEP-EMO'S AND THE STANFORD ACHIEVEMENT TEST ITEMS: GRADE 6, SOCIAL STUDIES

| Expected Measurable Outcomes Intermediate Level--Social Studies | Test Items |
|---|---|
| 8. Given photographs of city street scenes, families engaged in recreation, suburban and rural homes of modern United States society, the student; (1) identifies three or more sub-cultures or ethnic groups, (2) identifies three or more types of communities (urban, suburban, rural), and (3) identifies rules which he feels are in conflict with each other. | None |
| 9. Given an illustration focusing on meeting family food needs by moderns and primitives, the student states in his own words the self-sufficiency of food supply in primitive societies and the interdependence in contemporary societies. | None |
| 10. After observing a dramatization dealing with role conflict and listening to two divergent reports of the incident, the student distinguishes between an accurate and an inaccurate description of a sequence involving role conflict. | None |
| 11. Given illustrations and sentences which demonstrate precise examples of a geographic center, latitude, longitude, earth rotation and its effect on time, time zones, systems of land survey, urban street grids, southeast, southwest, northwest, azimuth and degrees of latitude and longitude, the student identifies each and states an example of each. | 46-74 |
| 12. Given a social conflict, the student identifies the probable causes, creates alternative hypotheses for its resolution, and conducts an experiment to test the project's solution to the hypotheses. | None |
| 13. The student constructs a plan of documented social action in which he has a leadership role, and actively enlists the support of others. | None |
| 14. The student revises opinions and modifies behavior in light of new evidence. | None |

TABLE LXXI

A SUMMARY OF THE ASSOCIATIONS EXISTING BETWEEN CEP-EMO'S AND THE SEQUENTIAL TEST OF EDUCATIONAL PROGRESS ITEMS: GRADE 9, SOCIAL STUDIES

| Expected Measurable Outcome<br>Junior High Level--Social Studies | Test Items |
|---|---|
| 15. The student listens to a value laden statement contradictory to his own position, and is able to paraphrase the statement to the satisfaction of the person expressing the opposing view. | None |
| 16. The student demonstrates his understanding that American democracy is a changing concept by explaining in his own words the pivotal points in the development of the present day democracy. | None |
| 17. The student demonstrates in his daily life in school and out, the basic methodologies and problem solving techniques of the seven major social science disciplines. | None |

TABLE LXXII

A SUMMARY OF THE ASSOCIATIONS EXISTING BETWEEN CEP-EMO'S AND THE SEQUENTIAL TEST OF EDUCATIONAL PROGRESS ITEMS: GRADE 11, SOCIAL STUDIES

| Expected Measurable Outcomes | Test Items |
|---|---|
| 18. The student at every grade level, demonstrates his understanding and application of basic fallacious statements made by other persons. | None |
| 19. Given several geographical regions from which to choose, the society within those regions, the student classifies the cultural characteristics of that society using the economy, religious expressions, or any social function acceptable for classification. | None |
| 20. The student analyzes his concept of democracy by comparing in his own words the general view of the controversial group and the current anarchist on the American scene and their interpretation whether or not we are a "republic". | None |
| 21. The student places an apisode or problem in larger contests including a space-time field, a movement or trend, and a conceptual frame of reference. | None |